SERVICE MANUAL

JumboTron

MODEL	DEST.
JTC-P110	World
JTC-P110B	World
JTC-P110C	AEP

REVISED-1

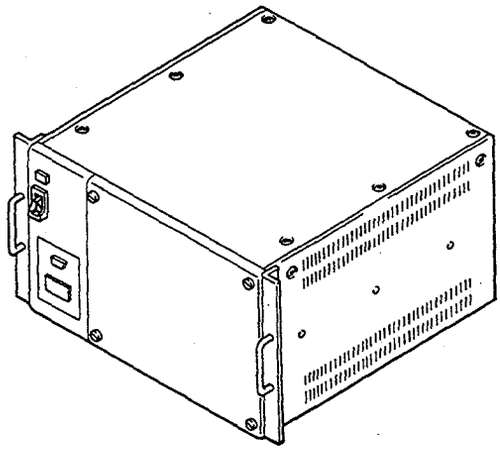

IMAGE CONTROL UNIT

イメージコントロールユニット

SONY

Specifications

Power requirements	100 to 120 V AC/200 to 240 V AC, 50/60 Hz
Power consumption	120 W (100 to 120 V) 124 W (200 to 240 V)
Dimensions	424 × 265.6 × 455 mm (w/h/d) (16 3/4 × 10 1/2 × 18 inches)
Mass	Approx. 25 kg (55 lb 2 oz)
Operating temperature	0°C to 40°C (32°F to 104°F)
Operating humidity	30% to 70%
Input	VIDEO: BNC connector (1), Composite video input, 1 Vp-p, with sync R/R-Y, G/Y, B/B-Y, SYNC R/R-Y, G/Y, B/B-Y: BNC connector (3), Component video/Analog RGB input, 0.7 Vp-p SYNC: BNC connector (1), Composite sync input, 0.2 – 1.2 Vp-p, Sync on Y or sync on G available (Composite sync signal has priority.) R, G, B, HD, VD R,G,B: BNC connector (3), CG (analog RGB) input, 0.7 Vp-p HD, VD: BNC connector (2), Horizontal/vertical sync inputs, 4 Vp-p
Output	Unit connectors: centro 14-pin connector (NTSC: max. 40 columns, PAL: max. 48 columns) MONITOR OUT: BNC connector (1), Composite video output UTILITY: D-sub 15-pin (1) CONTROL 1,2,3,4: D-sub 15-pin (4)
Supplied accessories	AC power cord (3) Operation guide (1)

概 略 仕 様

電 源	AC100～120V / AC200～240V、50 / 60Hz
消費電力	120W (AC100～120V) 124W (AC200～240V)
外形寸法	424 × 265.6 × 455mm (幅 / 高さ / 奥行き)
質 量	約 25kg
動作保証温度	0℃～40℃
動作保証湿度	30%～70%
入力端子	VIDEO 端子 : BNC 型 (1) , コンポジットビデオ、1Vp-p、同期付 R / R-Y、G / Y、B / B-Y、SYNC 端子 R / R-Y、G / Y、B / B-Y : BNC 型 (3)、コンポーネントビデオ / アナログ RGB 入力共用、0.7Vp-p SYNC : BNC 型 (1)、複合同期入力、0.2～1.2Vp-p、SYNC ON Y および SYNC ON G 入力 も可。ただし、複合同期信号が優先。 R、G、B、HD、VD 端子 R、G、B : BNC 型 (3)、CG (アナログ RGB) 入力、0.7Vp-p HD、VD : BNC 型 (2)、水平同期入力、垂直同期入力、4Vp-p
出力端子	ユニット端子 : セントロ 1 4 ピンコネクタ (NTSC : 最大 40 カラム 、PAL : 最大 48 カラム) MONITOR OUT 端子 : BNC 型 (1)、コンポジットビデオ出力 UTILITY 端子 : D SUB 15 ピン (1) CONTROL 1 、 2 、 3 、 4 端子 : D SUB 15 ピン (4)
付属品	電源コード (1) AC プラグアダプター (1) オペレーションガイド (1)

WARNING!!

NEVER TURN ON THE POWER IN A CONDITION IN WHICH THE DEGAUSS COIL HAS BEEN REMOVED.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL FOR SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

サービス用のマニュアル

安全のために

設置や保守，点検，修理などを行う前に，この「安全のために」と，サービス用のマニュアルをよくお読みください。

お客様へ

⚠ 警告

メンテナンスマニュアルは，サービス専用です。
お客様が，メンテナンスマニュアルに記載された設置や保守，点検，修理などを行うと感電や火災，人身事故につながることがあります。お客様自身では，絶対にサービスを行わないでください。
メンテナンスマニュアルは，サービストレーニングを受けた技術者のみご使用ください。

サービス技術者へ

⚠ 警告

ソニー製品は安全に十分に配慮して設計されています。しかし，電気製品はサービス時に間違った扱い方をすると，火災や感電などにより死亡や大けがなど人身事故につながることがあり，危険です。
この「安全のために」は事故を防ぐために重要な注意事項を示しています。この「安全のために」及び別冊のオペレーションマニュアルの「⚠警告⚠注意」をよくお読みの上，安全に設置や保守，点検，修理などを行ってください。
この「安全のために」は，製品全般の注意事項が記されておりますので，この機器をサービスする時には当てはまらない内容も含まれております。

警告表示の意味

このサービス用のマニュアルおよび製品では，次のような表示をしています。表示の内容をよく理解してから本文をお読みください。

⚠ 警告

この表示の注意事項を守らないと，火災や感電などにより死亡や大けがなど人身事故につながることがあります。

注意を促す記号

注意

火災

感電

行為を指示する記号

プラグをコンセントから抜く

強制

⚠警告　火災　感電　下記の注意を守らないと，火災や感電による死亡や大けがにつながることがあります。

プラグをコンセントから抜く

1. 感電にご注意を
・部品交換の場合は感電の危険があるので電源プラグを抜いてください。
・内部には高電圧の部分があり，通電時においては感電の危険がありますので充分ご注意ください。

強制

2. 指定部品を使用する
回路図，部品表に⚠印で指定されている部品は安全重要部品ですので指定のものをご使用ください。

強制

3. 部品の取付けや配線の引き回しは元通りにする
・チューブやテープなどの絶縁材料を使用した部品，及びプリント基板から浮かして取付けた部品を元通りにする。
・引き回しやクランパーで発熱部品，高圧部品及び可動部分に接近しないように処理したハーネスの引き回しを元通りにする。

強制

4. ブラウン管の取扱いは丁寧に行う
(モニター，CRTプロジェクター，ビューファインダーの場合)
ブラウン管に衝撃を与えると爆縮の恐れがあります。取扱いに充分ご注意ください。

強制

5. X線についてのご注意
X線に対しては，ブラウン管，高圧周辺回路等に配慮し安全を確保しています。従って，高圧周辺回路を修理する時はブラウン管など指定の部品を使用し，回路変更は絶対に行わないでください。指定以外の修理は高圧回路の電圧が上昇し，ブラウン管からX線が増加し，健康に悪影響があります。

強制

6. 電池についてのご注意
・電池は，正しく交換しないと爆発する危険があります。電池を交換する場合には必ずマニュアルで指定している電池を使用してください。
・火の中に入れないでください。ショートさせたり，分解，加熱しないでください。発熱，発火，破裂の恐れがあります。
・使用済電池は，端子(金属部分)にテープを貼るなどの処理をし，指定の方法で廃棄してください。
・使用済ニカド電池はリサイクル協力店にご持参ください。

強制

7. ラックマウントした機器を2台以上同時に引き出さない。又，手や指をはさまない。
・2台以上同時に引き出すと，機器の重みでラックが転倒し，大けがの原因になります。
・一度にラックから引き出すのは1台だけにしてください。また，ラックが転倒・移動しないように適切な処置を取ってください。
・ラックマウントした機器を収納するときおよび引き出すとき，手や指をはさむと，けがの原因となります。

強制

8. サービス後は安全点検を
サービスのために取り外したネジ，部品，配線がもとどおりになっているか確認してください。またサービスした箇所の周辺の部品及び線材の損傷してしまったところがないかなどを点検してください。
・感電・漏電を防ぐために金属部と電源プラグの絶縁チェックを行ってください。
(絶縁チェックの方法)
電源コンセントから電源プラグを抜き，電源スイッチをいれます。500 V絶縁抵抗計を用いて電源プラグのそれぞれの端子と外部露出金属部との間で，絶縁抵抗値が1MΩ以上であること。この値以下の時はセットの点検修理が必要です。

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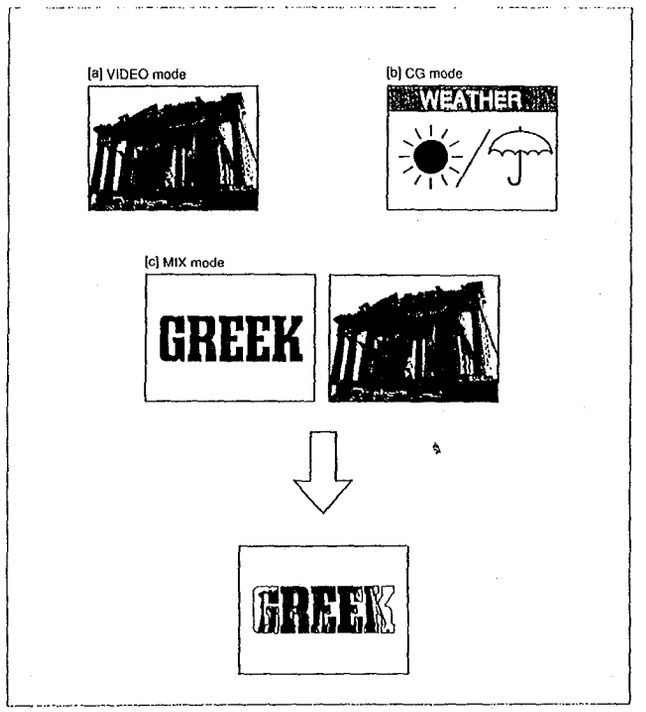
Overview of the JumboTron System

The JumboTron system displays video images on a large screen located either outdoors or indoors. Images from video sources such as a VTR, video camera and computer can be displayed on the screen.
The JumboTron system provides bright images of high resolution, regardless of whether it is day or night, or indoors or outdoors.

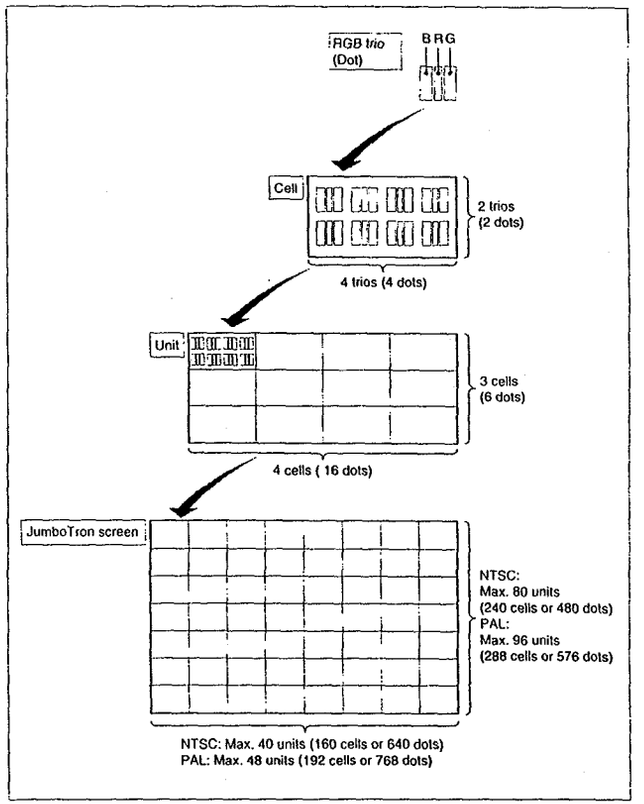
Images to Be Displayed on the JumboTron Screen

The JumboTron system can display the following three types of images:
[a] Video images from equipment such as a VTR, video camera and video disc (**VIDEO mode**)
[b] Computer graphics (**CG mode**)
[c] Mixed images of video images and computer graphics (**MIX mode**)
(Video images are superimposed on the monochrome areas of the computer graphics.)



Structure of the JumboTron Screen

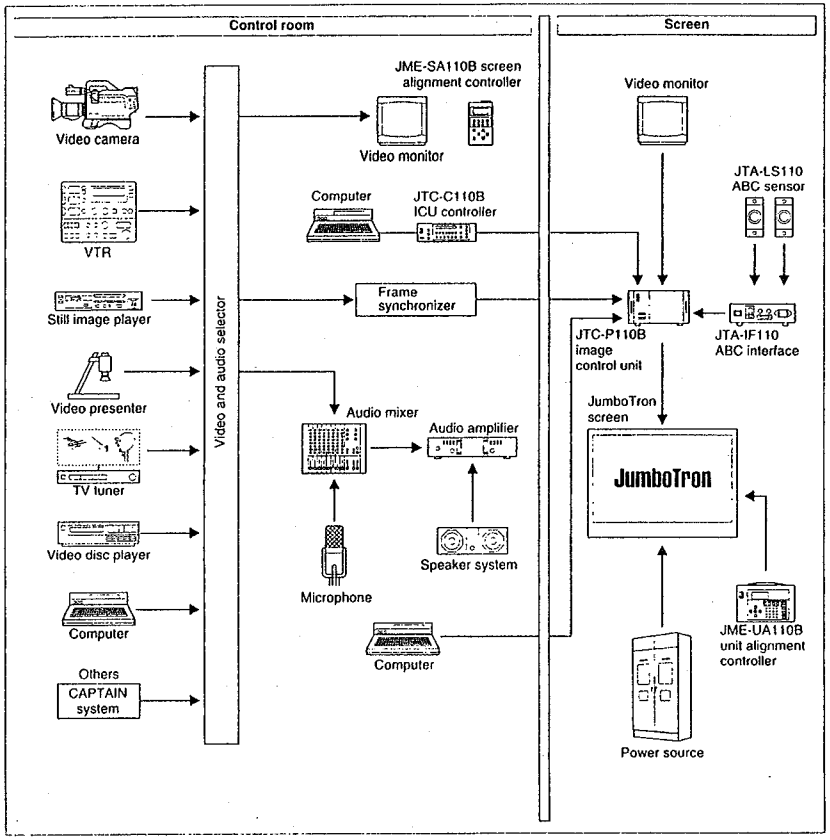
The luminous bodys of three primary colors (R, G and B) are used as luminous elements of the JumboTron. It was exclusively developed by Sony and is called "Trinilite."
The Trinilite has eight RGB trios (dots) in each cell, and the picture element pitch (intervals between RGB trios) is only 35 mm for the JTU-35B3 unit and 17.5 mm for the JTU-17B5 unit to attain high picture quality.
A screen unit consists of 12 cells, three in the vertical direction and four in the horizontal direction. You can compose a screen with a maximum of 80 units vertically and 40 units horizontally for NTSC. and 96 vertically and 48 horizontally for PAL.



The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

Configuration of the JumboTron System

The following is the suggested configuration of the JumboTron system.



Features

The JTC-C110B ICU controller is the remote controller for the JTC-P110B image control unit (ICU) which controls the images on the JumboTron screen. Using the controller, you can control the ICU from a control room at a distance of up to 500 m (1667 feet). The main functions of the JTC-C110B are as follows:

Turning on/off the ICU and screen
You can turn the ICU or the JumboTron screen on and off.

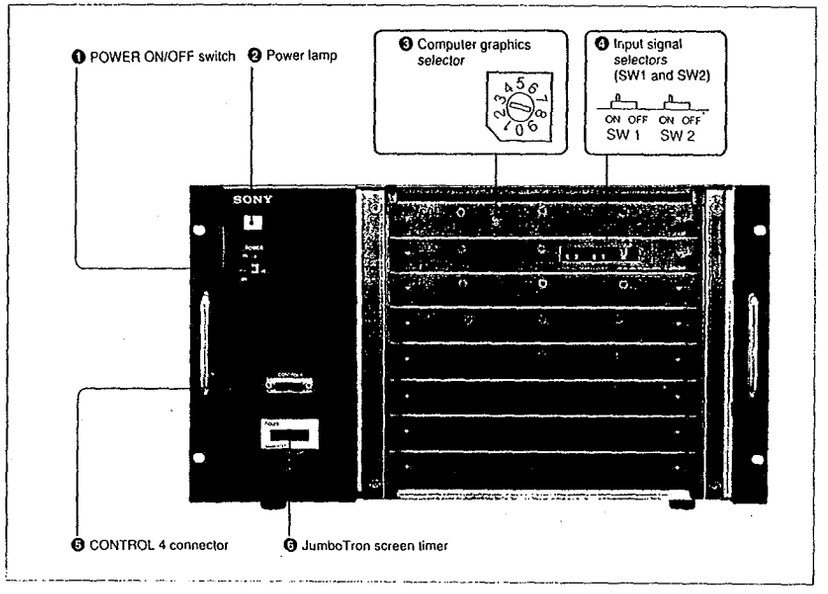
Selection of screen display mode
You can select the images to be displayed on the screen from among the three modes of VIDEO, CG and MIX.

Adjusting the picture of the screen
Adjust the brightness, hue, color and sharpness of the images of the video signal on the screen.
The brightness can be automatically adjusted according to the ambient light with the JTA-IF110 ABC interface and the JTA-LS110 ABC sensor. You can also set the desired brightness level, and four brightness levels can be stored in the memory and recalled at a touch.

Warning of screen abnormality
The display window indicates which portion of the screen has an abnormality.

Names and Functions of Parts

ICU Front Panel (front cover removed)



❶ POWER ON/OFF switch
Turn the ICU on/off.

❷ Power lamp
The lamp lights when the ICU is turned on.

❸ Computer graphics selector (Rotary switch on the CGI board)
Set this selector according to the type of computer to be connected.

Switch position	Computer
0	SMC-3000G series
1	Apple Macintosh[1] series (13")
2	IBM AT, PS/2 series (VGA Graphics)
3	NEC PC-9800 series (fH: 25 kHz)
4	Not used (spare for future use)
5	VWX-6000
6 to 9	Not used (spare for future use)

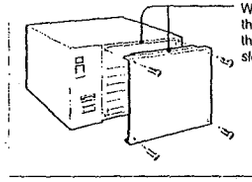
❹ Input signal selectors (SW1 and SW2 on the EDD board)
Set this selector according to the input signal.

SW1 \ SW2	OFF	ON
OFF	RGB	Y/R-Y/B-Y
ON	VIDEO	

❺ CONTROL 4 connector (D-sub 15-pin)
This is an input port for RS-422. Connect to peripheral equipment such as another ICU controller.

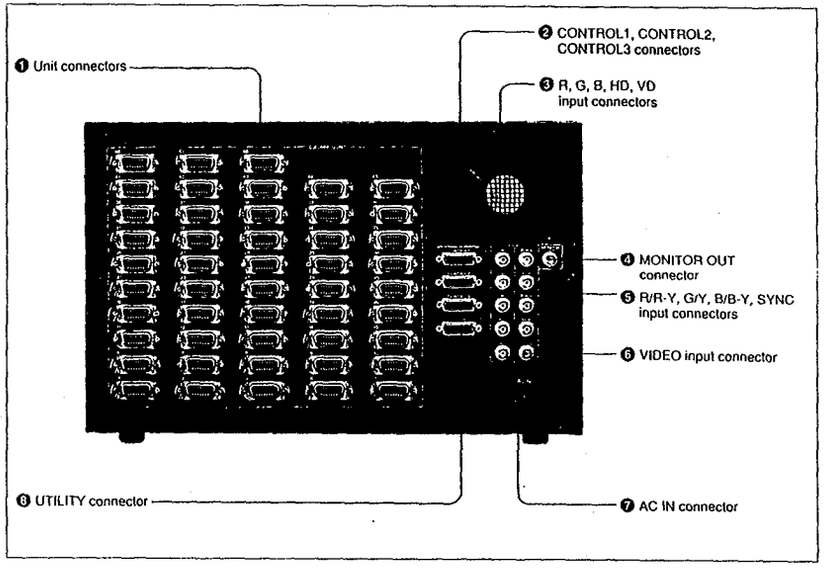
❻ JumboTron screen timer
It indicates the accumulated operation time of the screen.

To remove/reattach the front cover



1) Macintosh is a trademark of Apple Computer Inc.

ICU Rear Panel



❶ Unit connectors (centro 14-pin)
Connect to each unit of the JumboTron screen.

❷ CONTROL1, CONTROL2, CONTROL3 connectors (D-sub 15-pin)
Connect to ICU controller or the JTA-IF110 ABC interface.

❸ R, G, B, HD, VD input connectors (BNC type)
Connect to a computer. Connect to the HD and VD connectors if the computer has H/V separate sync signal, and to HD when it has composite sync signal. When connecting the Sony SMC-3000G personal computer, connect the DOT CLOCK connector to the VD connector.

Note

When a computer with sync signal on G-signal is connected and external sync signal is input, the hue of the images on the screen may change. In this case, use the internal sync signal.

❹ MONITOR OUT (output) connector (BNC type)
Connect to the video input connector of the video monitor.

❺ R/R-Y, G/Y, B/B-Y, SYNC input connectors (BNC type)
Connect to the video and audio selector.

❻ VIDEO input connector (BNC type)
This is a composite video input connector.

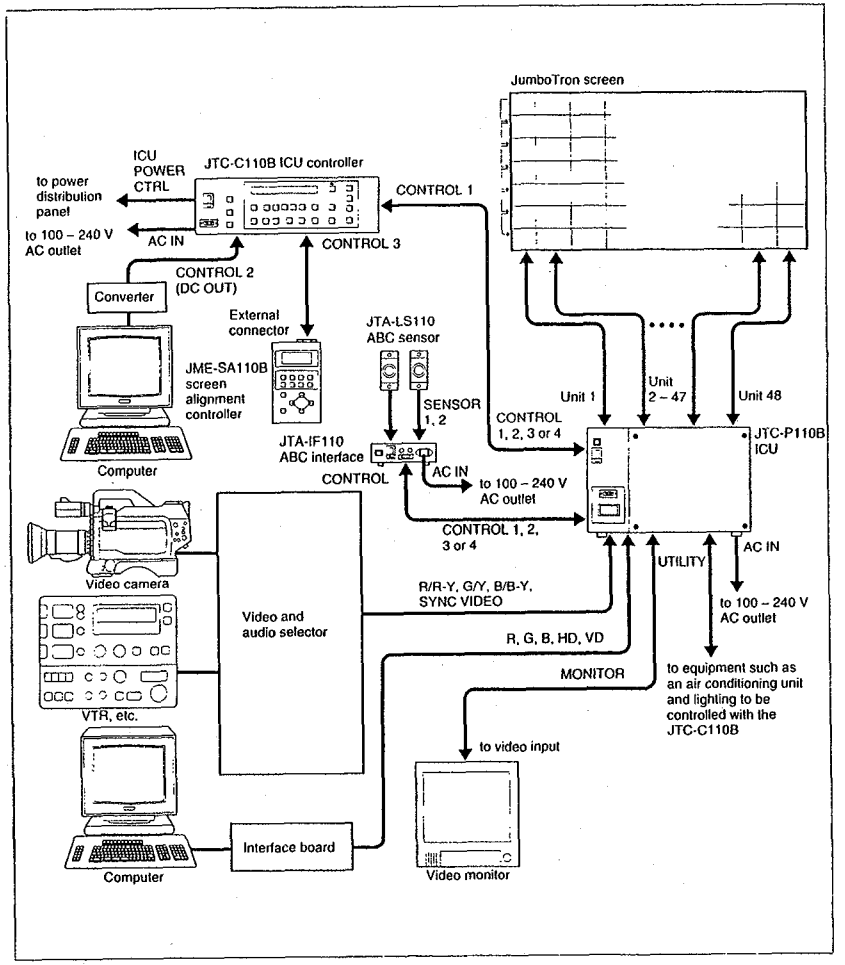
❼ AC IN connector
Connect to the power source of 100 - 240 V AC. Use the supplied AC power cord which fits the AC outlet in your area.

❽ UTILITY connector (D-sub 15-pin)
Connect to the equipment to be remote controlled with the UTILITY button on the ICU controller.

Connections

Turn off the power to all equipment when making the connections.
Check that the connectors are fully inserted before using.

JumboTron System Configuration



Displaying Images on the Screen

With the ICU controller, you can select the images to be displayed on the JumboTron screen.

System Preparation

Prepare the following before remote control operation with the ICU controller:

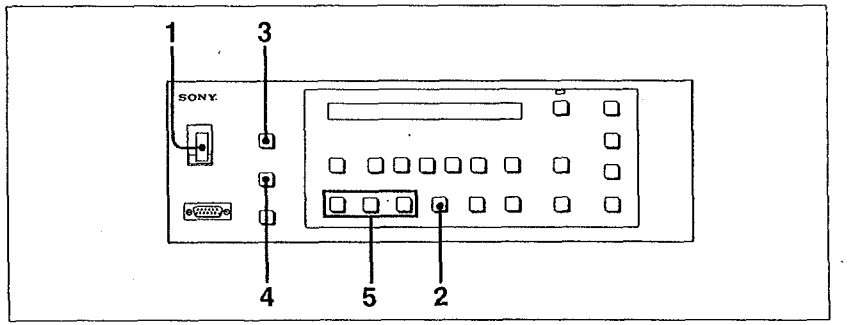
1 **Set the power switch on the power distribution panel, which supplies the power to the JumboTron system, to ON.**

2 **Turn on the equipment which sends the images.**

3 **Set the POWER switch on the ICU to ON.**

4 **Set the POWER switch on the ABC interface to ON.**

Remote Operation with the ICU Controller



1 **Set the POWER switch on the ICU controller to ON.**

2 **Press the REMOTE ON button.**
The button lights and "REMOTE ON" is displayed in the display window for about five seconds.
You can now control the ICU with the ICU controller.

```
REMOTE ON (ICU Version 5.00)
```

If the REMOTE ON button does not light
The following display appears in the display window.

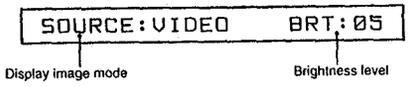
```
Error:Another Controller Remoted
```

Another ICU controller is connected to the ICU and its REMOTE ON button has been pressed. Press the REMOTE OFF button of the other controller.

3 **Keep pressing the ICU POWER button for more than a second.**
The button lights and the ICU is turned on.

4 **Keep pressing the JUMBOTRON button for more than a second.**
The button lights and the JumboTron screen is turned on.

5 **Press the DISPLAY MODE button to select the display image mode.**
The pressed button lights and the selected mode and brightness level appear in the display window.



Function of each button

Buttons	Images to be displayed
VIDEO	Video images from VTR or video camera
MIX	Computer graphics with superimposed video images
CG	Computer graphics

6 **Operate the image output equipment (VTR, computer, etc.) to send the images.**

7 **Adjust the picture.** *(See "Adjusting the Screen Picture" on page 18.)*

After use

1 Keep pressing the JUMBOTRON button for more than a second to turn off the screen.
2 Press the REMOTE OFF button to disconnect the controller and ICU.
3 Keep pressing the ICU POWER button for more than a second to turn off the ICU.
4 Stop the image sending operation of the image output equipment and turn it off.
5 Set the POWER switch on the ICU controller to OFF.
6 Set the power switch of the power distribution panel to OFF.
(Normally, leave the POWER switch of the ICU in the ON position.)

When the JumboTron is not used for a long period of time
Make sure to turn off the whole system with the switch on the power distribution panel.

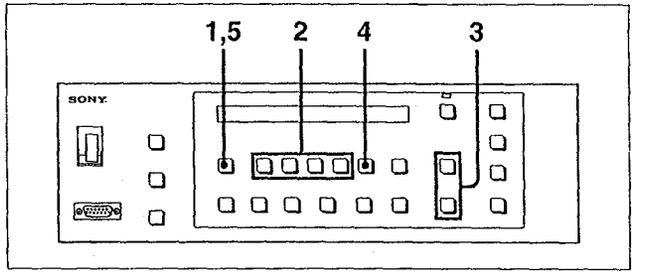
To turn the ICU on again
Wait for more than three minutes before you turn it on again.

Adjusting the Screen Picture

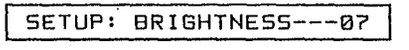
Adjusting the Brightness

There are 16 levels of brightness. Four brightness levels can be preset and be recalled at a touch.

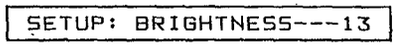
Presetting the brightness



1 **Press the BRIGHTNESS button.**
The button lights and the following appears in the display window.

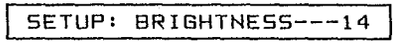


2 **Press a preset button (1, 2, 3 or 4).**
The pressed button lights.



3 **Adjust the brightness by pressing the UP/DOWN buttons.**
The brightness level is adjustable in a range of 1 - 16 displayed in the display window.

Pressing the UP button	Pressing the DOWN button
Changes from 1 (MIN) to 16 (MAX) and becomes brighter.	Changes in the reverse order and becomes darker.



4 **Press the MEMORY button.**
The adjusted brightness is stored in the preset memory.
The stored brightness in each preset memory appears in the display window for a few seconds.

```
BRIGHTNESS PRESET 1:02 2:06 3:09 4:15
```

By repeating the above steps, four different brightness levels can be stored in the 1-4 preset memories.

5 **Press the BRIGHTNESS button again to finish the brightness adjustment.**
The button turns off.

Adjusting to the brightness level in the memory
Press a preset button (1 to 4).

Changing the brightness temporarily
Press the BRIGHTNESS button to make it light and adjust with the UP/DOWN buttons. You can also adjust with the UP/DOWN buttons after adjusting to the brightness in memory by pressing a preset button.
You can change the brightness temporarily without changing the brightness in the memory.

Automatic Brightness Adjustment

By using the JTA-IF110 ABC interface and the JTA-LS110 ABC sensors, the JumboTron system sets the images on the screen to proper brightness automatically.

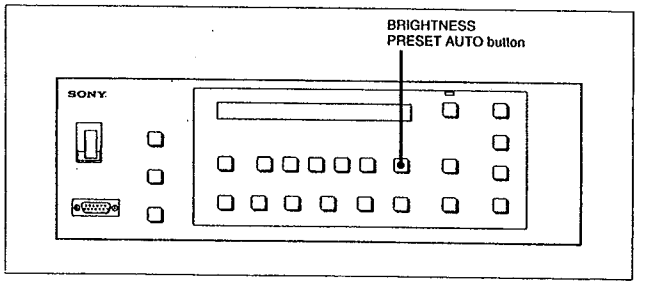
Connections

Connect the CONTROL connector on the ABC interface to the CONTROL 1, 2 or 3 connector on the ICU.
When connecting one sensor, connect it to the SENSOR 1 connector on the ABC interface using the supplied VK-320A connecting cable. When connecting two sensors, connect them to the SENSOR 1 and 2 connectors.

Adjusting the brightness automatically

Press the BRIGHTNESS PRESET AUTO button.
The button lights.
The following display appears in the display window for approximately a second.

```
AUTO BRIGHTNESS ON
```



If the BRIGHTNESS PRESET AUTO button does not light
The following display appears. You cannot adjust the brightness automatically.

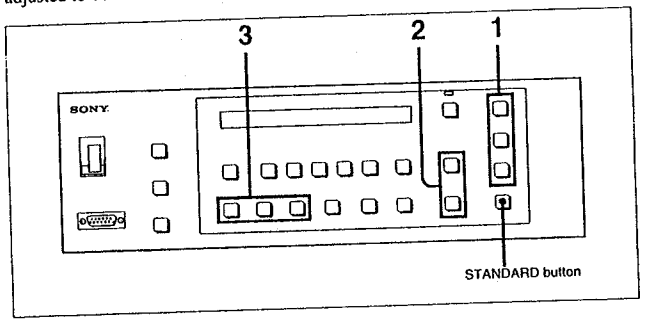
```
Error: ABC Connection Error
```

The ABC interface is not connected to the ICU correctly. Check the connection.

The brightness of the screen changes in 16 levels according to the ambient light data. You can re-set the data set for change of brightness levels with the JME-SA110B screen alignment controller.
For details, refer to the operation manual of the JME-SA110B.

Adjusting the Hue, Color and Sharpness

The hue, color and sharpness of the images of the composite video signals can be adjusted to 101 levels.



1 **Press the HUE, COLOR or SHARP button to select the item to be adjusted.**
The pressed button lights and the selected item appears in the display window.

```
SETUP:    COLOR  ---050
```

2 **Press the UP/DOWN buttons to adjust.**
When you press the UP button, the adjusted level in the display window changes from 0 (MIN) to 100 (MAX). When you press the DOWN button, it changes in the reverse order.

```
SETUP:    COLOR  ---052
```

Item	Button	Pressing the UP button	Pressing the DOWN button
Hue	HUE	Makes the skin tones green	Makes the skin tones purple
Color	COLOR	Increases color intensity	Decreases color intensity
Sharpness	SHARP	Makes the picture sharper	Makes the picture softer

3 **To finish the adjustment, press one of the DISPLAY MODE buttons which is lit.**

Notes

- If you do not press any button for 10 seconds while adjusting, the display window returns to the display before starting the adjustment. To continue adjusting, repeat from step 1.
- The HUE button does not function on the picture input from the PAL color sources.

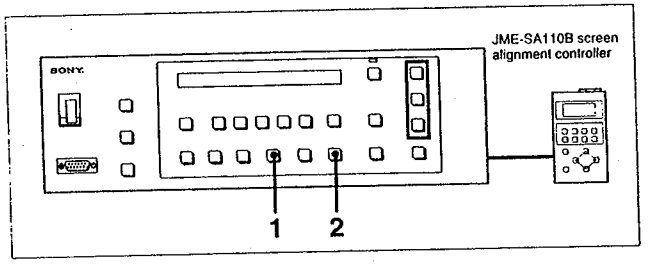
Resetting to the factory preset levels

After pressing the HUE, COLOR or SHARP button to make it light, press the STANDARD button. The setting changes to the factory preset level (50).

Controlling Other Equipment in the JumboTron System

Using the JME-SA110B Screen Alignment Controller

The screen alignment controller displays the test patterns for an operation check or controls the position or the reduction level of the images on the screen by connecting to the ICU controller. *(For details, please refer to the operation manual of the JME-SA110B.)* In this case, the ICU controller can enable or disable the connection of the screen alignment controller to the ICU or screen.



When using the screen alignment controller

1 **Press the REMOTE ON button to make it light.**

2 **Press the SCREEN CONTROL button to make it light.**
The screen alignment controller is enabled. None of the buttons except the REMOTE ON button on the ICU controller functions.

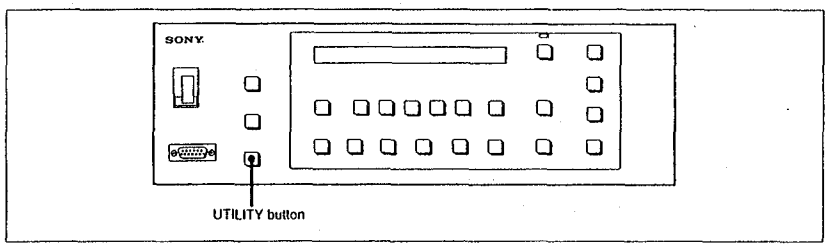
```
SCREEN CONTROL MODE
```

When not using the screen alignment controller

Press the SCREEN CONTROL button to turn the light off.

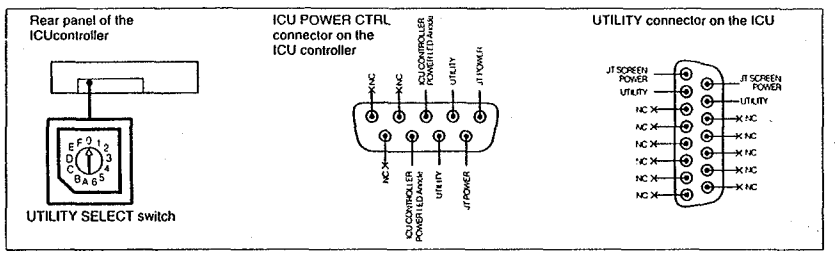
Controlling the Air Conditioning Unit, Lighting and Other Equipment

Using the UTILITY button on the ICU controller, you can turn only the specified equipment connected to the ICU on/off or operate other functions.
Connect the equipment to be controlled to the UTILITY connector on the ICU rear panel, and select the control function with the UTILITY SELECT switch on the ICU controller rear panel. You can change the size and position of the image displayed on the screen, and four settings can be preset using the screen alignment controller. You can recall them with the UTILITY button on the ICU controller.



Setting the UTILITY SELECT switch

The contacts for UTILITY are on the UTILITY connector (Pins 2 and 10) on the ICU and on the ICU POWER CTRL connector (Pins 2 and 7) on the ICU controller. Set the UTILITY SELECT switch as required to switch on/off the contacts. The switch also selects the switch mode (pages 0, 1, 2 or 3) of the preset size and position of the image on the screen. Make sure to switch the UTILITY SELECT switch after the ICU controller is turned off.



Position of UTILITY SELECTswitch	Function
0	Making/breaking the contact on the UTILITY connector of the ICU only
1	Making/breaking the contact on the ICU POWER CTRL connector of the ICU controller only
2	Making/breaking both contacts simultaneously
3	Changing the image size or/and position (OFF: page 0, ON: page 1)
4	Changing the image size or/and position (OFF: page 2, ON: page 3)
5 to F	Not used (Spare for future use)

Controlling with the UTILITY button

Keep pressing the UTILITY button for more than a second to make the contact(s) or to change the image size or/and position. Keep pressing it again to break it (them).

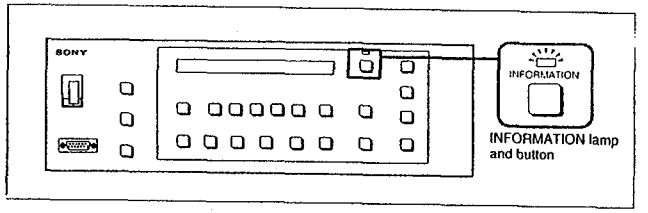
Trouble Checks

The ICU controller is equipped with an information function which informs of screen abnormality.

Using the Information Function

When an abnormality occurs in a screen unit

The ICU controller starts to check a unit approximately a minute after the Jumbotron screen is turned on.
If a unit has trouble, the INFORMATION lamp on the ICU controller flashes.



To display the abnormal part of a screen unit

Press the INFORMATION button. The number of abnormalities appears in the display window.
Example: There are ten abnormalities.

```
10 INFORMATION Exist
```

Then the unit number with an abnormality appears.

Example: No. 03-01 unit has electrical trouble.

```
01: UNIT FAILURE ADRS 03-01*
```

Error No. Type of error Unit number

* When using a multiple screen, the screen number is displayed before the unit number. (Example: 2-03-01)

Example: No. 05-01 unit has communication trouble.

```
02:CommunicationErrorADRS05-01
```

Unit numbers — Left-top of the screen →

01-01	02-01	03-01	04-01	
01-02	02-02	03-02	04-02	
01-03	02-03	03-03		
01-04	02-04	03-04		
01-05	02-05			

When several units have an abnormality

The information in the display window changes each time the UP/DOWN button is pressed.

To check the abnormal part of a cell

If there is a problem in a cell, you can display its unit and cell numbers in the display window. During this check the image will be distorted for several seconds.

1 **Keep pressing the INFORMATION button for more than a second.**
The controller enters the cell check mode and the following display appears.

```
CELL CHECK MODE OK→UP/CANCEL→DOWN
```

2 **Press the UP button.**
Cell check starts. The image is distorted for several seconds.

```
CELL FAILURE CHECKING NOW...
```

After several seconds the number of abnormalities appears in the display window and the INFORMATION lamp flashes. The indicator on the rear of the unit with an abnormal cell lights.
Example: There are two abnormal cells.

```
CELL FAILURE Found (02 Errors)
```

3 **Press the DOWN button.**
The position of the cell with an abnormality appears.
Example: No. 1-1 cell in the No. 01-03 unit has trouble.

```
01: CELL FAILURE ADRS 01-03*/1-1
```

Error number — Type of error — Unit number — Cell number

* When using a multiple screen, the screen number is displayed before the unit number. (Example: ADRS 2-01-03)

Cell numbers (Left-top of the unit →)

1-1	2-1	3-1	4-1
1-2	2-2	3-2	4-2
1-3	2-3	3-3	4-3

When more than two cells have an abnormality

The information in the display window changes each time the UP/DOWN button is pressed.

If there are no abnormalities

In step 2 above, the following display appears.

```
NO CELL FAILURE
```


Troubleshooting

If you think you have a problem during operation, check through the following list.

Symptom	Cause	Corrective action
The ICU/screen does not operate when any button on the ICU controller is pressed.	The REMOTE ON button has not been pressed.	Press the button to make it light.
	The REMOTE ON button on another ICU controller has been pressed.	Press the REMOTE OFF button of the other ICU controller, then press the REMOTE ON button of this controller.
	ICU is not turned on.	Set the POWER switch on the ICU to ON.
		Keep pressing the ICU POWER button for more than a second to make it light.
	Screen is not turned on.	Turn on the power distribution panel which supplies the power to the screen.
		Keep pressing the JUMBOTRON button for more than a second to make it light.
	Image output equipment is not properly connected.	Check the connections.
A part of the image on the screen is not displayed.	A unit or cell is defective.	Check with the information function and replace.
	The units are not connected properly.	Check the connection between the units and the ICU.

Error Messages

Error message	Meaning	Corrective action
ICU Connection Error	The ICU is not connected to the ICU controller correctly.	Turn on the power of the ICU. Check that: • the plugs are inserted firmly into the connectors. • the plugs are connected to the correct connectors. • the connecting cable wires are not down.
REMOTE OFF	Control of the ICU from the ICU controller is disabled.	Press the REMOTE ON button on the ICU controller.
JT POWER OFF	The power of the JumboTron screen is turned off.	Keep pressing the JUMBOTRON button for more than a second to make it light.
ABC Connection Error	Connection between the ICU and the ABC interface is not correct.	Check that • the power of the ABC interface is turned on. • the plugs are inserted firmly. • the plugs are connected to the correct connectors.
Another Controller Remoted	The REMOTE ON button on another ICU controller has been pressed.	Press the REMOTE OFF button of the other ICU controller.
MODE Error	The button does not function in the current mode.	The hue, color and sharpness cannot be adjusted when the display image mode is set to CG. Press the DISPLAY MODE VIDEO button to make it light.
SCREEN SIZE not initialized	The screen size was not initialized before using the system.	Consult qualified Sony service personnel.
SCREEN Warming up	The JumboTron screen is warming up.	The JumboTron screen warms up for about 30 seconds after the power is set to ON, during which time the REMOTE OFF, SCREEN CONTROL and INFORMATION buttons do not function. Operate the controller after the message disappears.
PAL MODE	The input video signal is PAL color system.	The hue of the images input from the PAL color video sources cannot be adjusted.

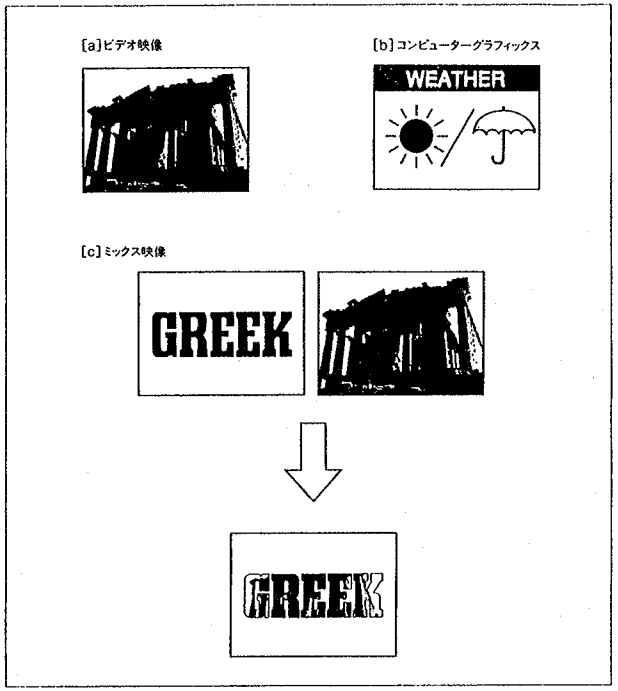
Consult qualified Sony service personnel for maintenance and repair of the JumboTron system.

ジャンボトロンシステムの概要

ジャンボトロンシステムは、室内や屋外の大型ディスプレイ(ジャンボトロンスクリーン)に映像を表示させる装置です。VTRやビデオカメラ、コンピューターなどの映像ソースから送られた映像をスクリーンに表示させることができます。
ジャンボトロンシステムは、昼夜や室内屋外を問わず、高輝度で高解像度の映像を表示できます。

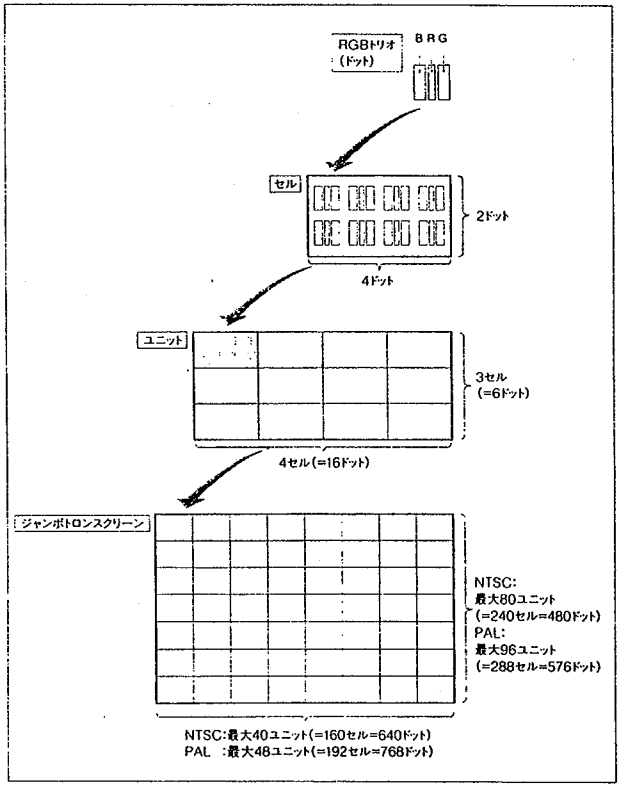
ジャンボトロンスクリーンに表示できる映像

スクリーンには、次の3種類の映像を表示できます。
[a] VTR、ビデオカメラ、ビデオディスクなどからのビデオ映像
[b] コンピューターグラフィックス(CG)
[c] ビデオ映像とコンピューターグラフィックスをミックスした映像
(コンピューターグラフィックスの単色の部分にビデオ映像を重ねたもの)



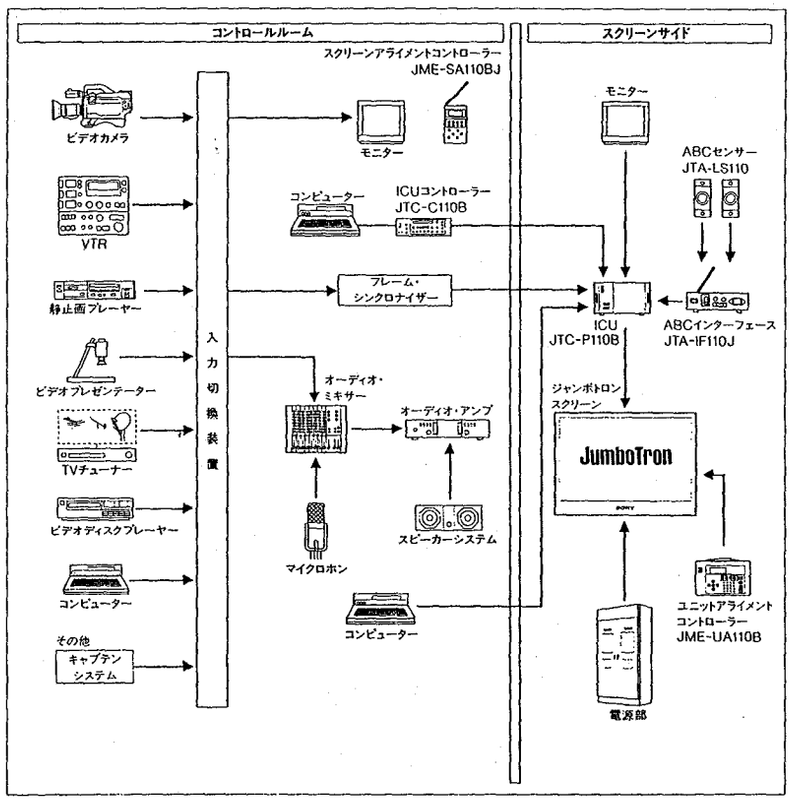
ジャンボトロンスクリーンの構造

ジャンボトロンは、発光素子にソニーが独自に開発した、RGB3原色の発光体「トリニライト」を採用しています。
本システムでは、1個のセルに8個のRGBトリオ(ドット)がはいったトリニライトを採用し、画質を決定する画素ピッチ(RGBトリオの間隔)がわずか35mm(JTU-35B3)または17.5mm(JTU-17B5)という高画質を実現しています。
また、縦3個、横4個の計12個のセルで構成されるスクリーンユニットを、最大で縦80個、横40個(NTSC)または縦96個、横48個(PAL)並べて大画面を構成することができます。



ジャンボトロンシステムの構成機器

次の図はジャンボトロンシステムの構成例を示します。



本機の特長

ICUコントローラーJTC-C110Bは、ジャンボトロンスクリーンの画像処理を行うICU(Image Control Unit)JTC-P110Bをリモートコントロールする装置です。本機を使うと、最長約500m離れたコントロールルームなどからICUをコントロールすることができます。
JTC-C110Bの主な機能は次のとおりです。

ICUやスクリーンの電源の入切

ICUやスクリーンの電源を入れたり、切ったりできます。

スクリーンの表示モードの選択

スクリーンに表示する映像を、ビデオ、CG、ミックスの3種類に切り換えます。

スクリーンの画質調整

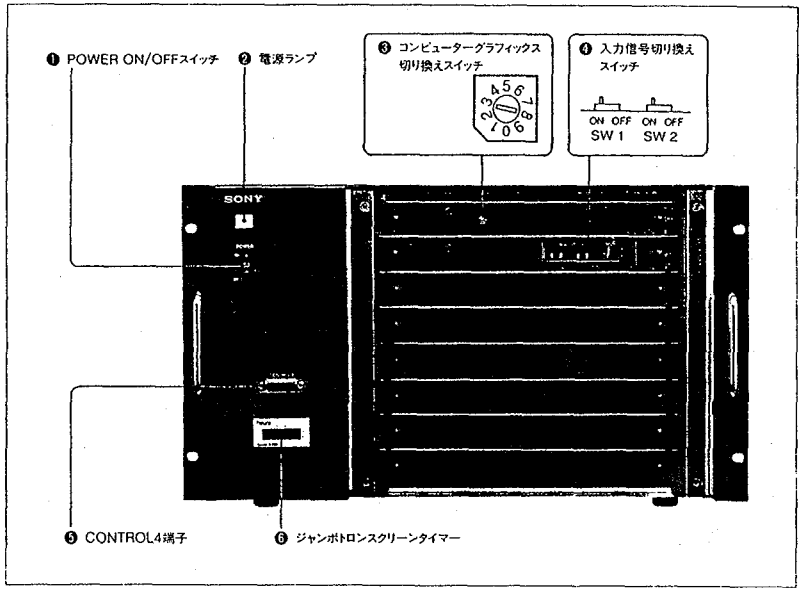
スクリーンの画像の明るさ(ブライトネス)、色合い(ヒュー)、色の濃さ(カラー)、鮮明度(シャープネス)を調整できます。
画像の明るさは、別売りのABCインターフェースJTA-IF110JとABCセンサーJTA-LS110により、周囲の明るさに応じて自動的に調整することができます。また、4段階の明るさをプリセットでき、ワンタッチで呼び出すこともできます。

スクリーンの異常の警告

スクリーンのどの部分に異常があるかを表示窓に表示します。

各部の名称と働き

ICU前面(パネルを取り外した状態)



❶ POWER ON/OFF(電源)スイッチ
ICUの電源を入れたり切ったりします。

❷ 電源ランプ
ICUの電源が入っていると点灯します。

❸ コンピューターグラフィックス切り換えスイッチ(CGI基板のロータリースイッチ)
接続するコンピューターに合わせて切り換えます。

スイッチの位置	コンピューター
0	SMC-3000Gシリーズ
1	Apple Macintosh[1]シリーズ(13")
2	IBM AT、PS/2シリーズ(VGA Graphics)
3	NEC PC-9800シリーズ(H:25kHz)
4	未使用(将来の拡張用)
5	VWX-6000
6~9	未使用(将来の拡張用)

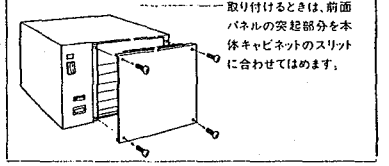
❹ 入力信号切り換えスイッチ(EDD基板のSW1、SW2)
入力される映像信号に合わせて切り換えます。

SW1 \ SW2	OFF	ON
OFF	RGB	Y/R-Y/B-Y
ON	VIDEO	

❺ CONTROL4(コントロール4)端子(D SUB 15ピン)
RS-422入力ポートです。他のICUコントローラーなど周辺機器とつなぎます。

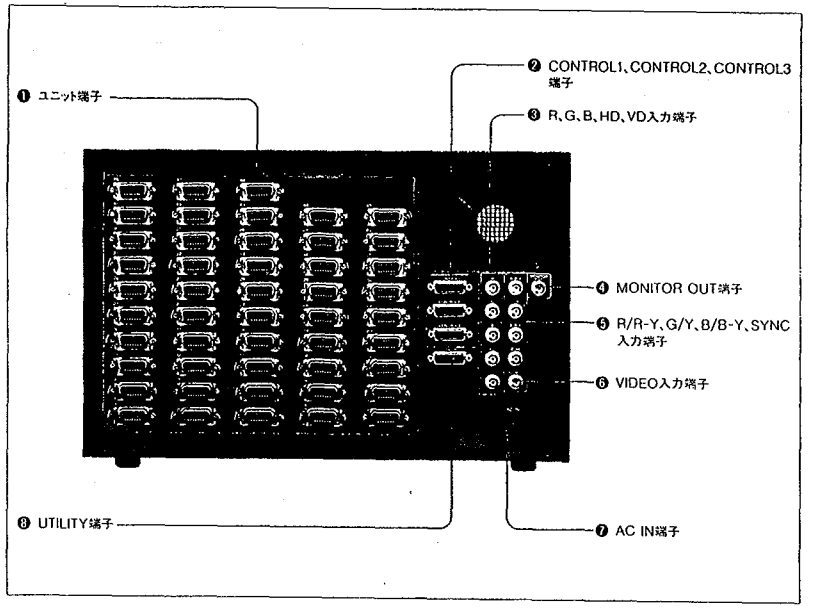
❻ ジャンボトロンスクリーンタイマー
スクリーンの積算稼動時間を表示します。

前面パネルの取り外し・取り付けかた



1)Macintoshはアップルコンピューター社の商標です。

ICU後面



❶ ユニット端子(セントロ14ピンコネクター)
ジャンボトロンスクリーンの各ユニットと接続します。

❷ CONTROL1、CONTROL2、CONTROL3(コントロール1、2、3)端子(D SUB 15ピン)
ICUコントローラーや、ABCインターフェースJTA-IF110Jなどと接続します。

❸ R、G、B、HD、VD入力端子(BNC)
コンピューターとつなぎます。同期信号が水平、垂直分離のときは、HDとVD端子へ、水平、垂直非分離のときはHD端子のみへつなぎます。ソニーSMC-3000シリーズのパソコンをつなぐときは、DOT CLOCK端子をVD端子へ接続します。

ご注意
G信号に同期信号が含まれているコンピュータをつないだとき、外部同期信号を入力すると、画面の色合いが変わるなどの症状が出ることがあります。このような場合は、内部同期信号を使用してください。

❹ MONITOR OUT(モニター出力)端子(BNC)
ビデオモニターの映像入力端子とつなぎます。

❺ R/R-Y、G/Y、B/B-Y、SYNC入力端子(BNC)
入力切換装置とつなぎます。

❻ VIDEO(ビデオ)入力端子(BNC)
コンポジットビデオ入力端子です。

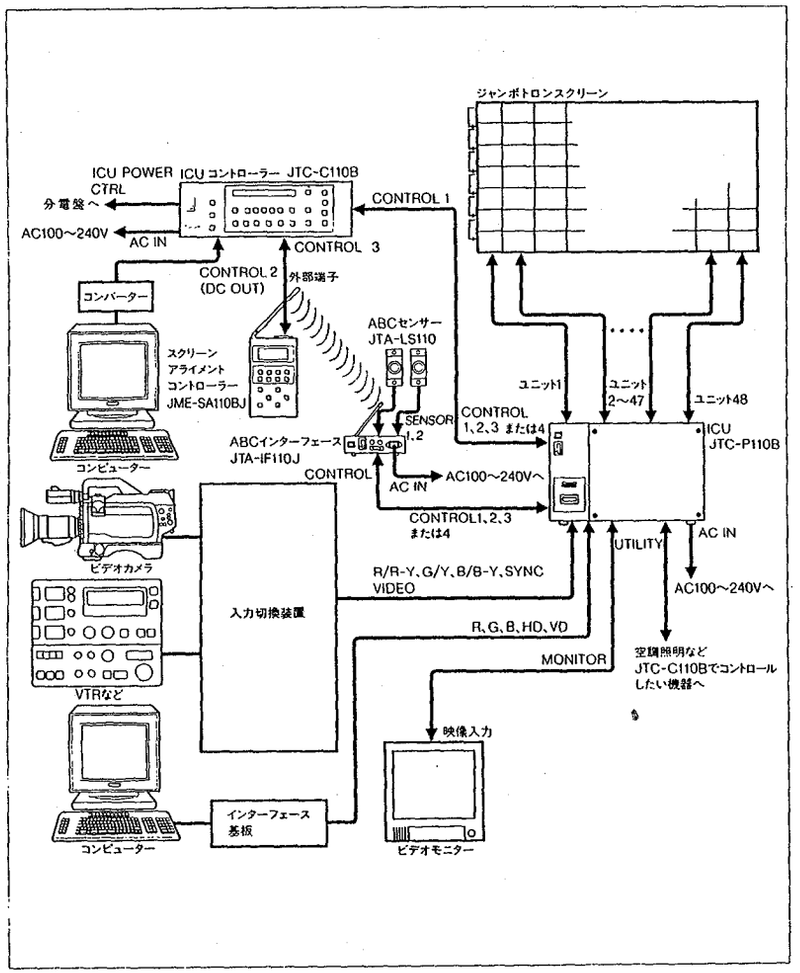
❼ AC IN(AC入力)端子
100V~240VのAC電源とつなぎます。
接続には付属の電源コードの中から、コンセントの形状に合ったコードをお使いください。

❽ UTILITY(ユーティリティー)端子(D SUB 15ピン)
接続には、付属の電源コードの中から、コンセントの形状に合ったコードをお使いください。

接続について

各機器の電源スイッチを切ってから接続をしてください。
ご使用の前に、接続がゆるんだり、コネクターが抜けたりしていないかご確認ください。

ジャンボトロンシステムの接続図



スクリーンに画像を映す

本機を使って、ジャンボトロンスクリーンに映す画像を選択することができます。

システムの準備

ICUコントローラーによるリモート操作の前に、次の準備をしておいてください。

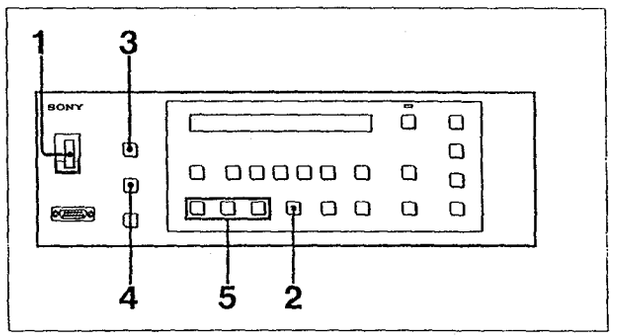
1 ジャンボトロンシステムに電源を供給する分電盤のスイッチをONにする。

2 映像を送り出す機器の電源を入れる。

3 ICUのPOWERスイッチをONにする。

4 ABCインターフェースのPOWERスイッチをONにする。

ICUコントローラーによるリモート操作



1 ICUコントローラーのPOWERスイッチをONにする。

2 REMOTE ONボタンを押す。

ボタンが点灯し、表示窓に「REMOTE ON」の表示が約5秒間出ます。
これで、このICUコントローラーでICUをコントロールできる状態になります。

```
REMOTE ON (ICU Version 5.00)
```

REMOTE ONボタンを押しても点灯しない場合は

表示窓に次の表示が出ます。

```
Error:Another Controller Remoted
```

ICUに別のICUコントローラーが接続してあり、そのコントローラーのREMOTE ONボタンが押されています。そのコントローラーのREMOTE OFFボタンを押してください。

3 ICU POWERボタンを1秒以上押し続ける。

ボタンが点灯し、ICUの電源が入ります。

4 JUMBOTRONボタンを1秒以上押し続ける。

ボタンが点灯し、ジャンボトロンスクリーンの電源が入ります。

5 DISPLAY MODEボタンを押して、映像表示モードを選ぶ。

押したボタンが点灯し、表示窓に選んだモードと明るさが表示されます。

```
SOURCE:VIDEO     BRT:05
```

映像表示モード　　明るさレベル

各ボタンの働き

ボタン	映したい画像
VIDEO	VTRやビデオカメラなどのビデオ映像を映すとき
MIX	コンピューターの画像にビデオ映像を重ねて映すとき
CG	コンピューターの画像を映すとき

6 映像送出機器(VTR、コンピューターなど)を操作して、映像を送り出す。

7 画質を調整する。(◆20ページの「スクリーンの画質を調整する」参照。)

使い終わったら

1 JUMBOTRONボタンを1秒以上押し続けて、スクリーンの電源を切ります。
2 REMOTE OFFボタンを押して、コントローラーとICUの接続を切ります。
3 ICU POWERボタンを1秒以上押し続けて、ICUの電源を切ります。
4 映像送出機器を操作して、映像の送り出しを止めてから、電源を切ります。
5 ICUコントローラーのPOWERスイッチをOFFにします。
6 分電盤のスイッチをOFFにします。
(ICUのPOWERスイッチは、通常ONのままにしておきます。)

長期間ジャンボトロンを使用しない場合は

必ず分電盤のスイッチでシステム全体の電源を切ってください。

いったんICUの電源を切ってから再び入れるときは

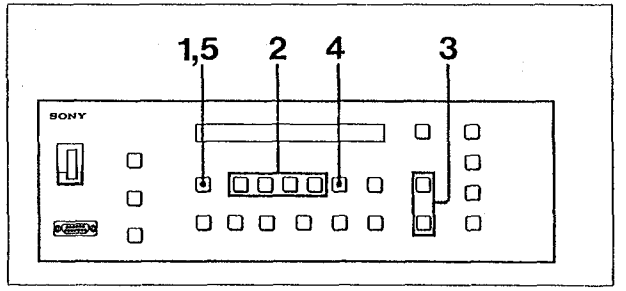
3分以上経ってから入れてください。

スクリーンの画質を調整する

明るさを調整する

16段階に明るさを調整できます。好みの明るさを4種類プリセットしておき、ワンタッチで選ぶこともできます。

明るさをプリセットするには



1 BRIGHTNESSボタンを押す。

ボタンが点灯し、表示窓に次の表示が出ます。

```
SETUP: BRIGHTNESS---07
```

2 プリセットボタン1(または、2、3、4のいずれか)を押す。

押したボタンが点灯します。

```
SETUP: BRIGHTNESS---13
```

3 UP、DOWNボタンを押して、好みの明るさに調整する。

表示窓の値が1～16の範囲で調整できます。

UPボタンを押すと	DOWNボタンを押すと
1(MIN)→16(MAX)の順に変わり、明るくなる	逆方向に変わり、暗くなる

```
SETUP: BRIGHTNESS---14
```

4 MEMORYボタンを押す。

プリセットボタンに調整した明るさがメモリーされます。

表示窓には各プリセットボタンにメモリーされている明るさが数秒間表示されます。

```
BRIGHTNESS PRESET 1:02 2:06 3:09 4:15
```

上の手順を繰り返して、1～4 のプリセットボタンにそれぞれ違った明るさをメモリーすることができます。

5 明るさ調整を終えるには、BRIGHTNESSボタンを押す。

ボタンの点灯が消えます。

メモリーした明るさに調整するには

プリセットボタン(1～4)を押します。

一時的に明るさを変更するには

BRIGHTNESSボタンを押して点灯させてから、UP、DOWNボタンを押して好みの明るさに調整します。

また、プリセットボタンを押して、メモリーされている明るさにしてから、UP、DOWN ボタンを押すこともできます。

メモリーの中身を変えずに、一時的に明るさを変更できます。

明るさを自動調整する(自動輝度調整)

別売りのABCインターフェースJTA-IF110Jとこれにつないだ ABCセンサー JTA-LS110を使用することにより、周囲の明るさに応じてスクリーンの明るさ(輝度レベル)を自動的に調整することができます。

接続

ABCインターフェースのCONTROL端子をICUのCONTROL1、2または3端子につなぎます。

ABCインターフェースにはABCセンサーを2台つなぐことができます。

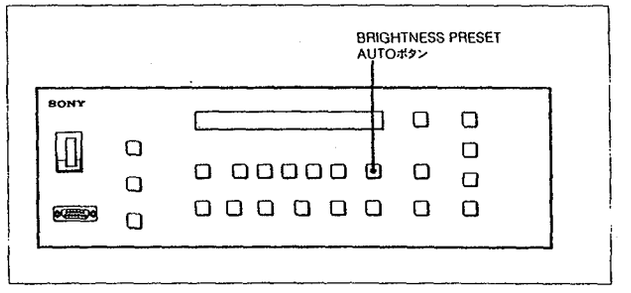
1台だけつなぐときは、ABCインターフェースのSENSOR1端子に、2台つなぐときはSENSOR1、2端子に、それぞれ付属のVK-320A接続ケーブルを使って接続します。

明るさを自動調整するには

BRIGHTNESS PRESET AUTOボタンを押して、ボタンを点灯させます。

表示窓に次の表示が約1秒間出ます。

```
AUTO BRIGHTNESS ON
```



BRIGHTNESS PRESET AUTOボタンを押しても点灯しない場合は

表示窓にエラーが表示され、自動輝度調整はできません。

```
Error: ABC Connection Error
```

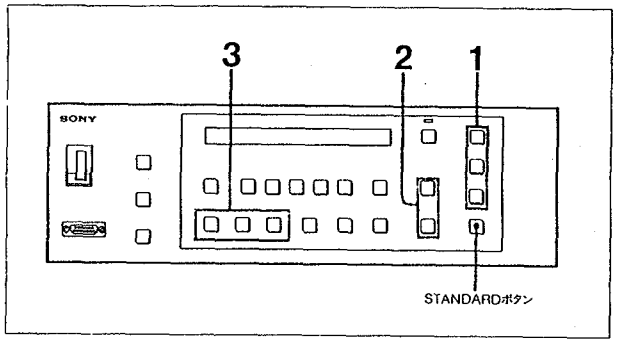
ABCインターフェースが正しく接続されていません。もう一度接続し直してください。

自動調整時の、スクリーンの明るさ(輝度レベル)の変化に対する周囲の明るさのデータ値を、スクリーンアライメントコントローラーJME-SA110BJで設定し直すことができます。

◆設定のしかたは、JME-SA110BJの取扱説明書をご覧ください。

色合い、色の濃さ、鮮明度を調整する

コンポジットビデオ入力信号をスクリーンに映した場合、色合い(HUE)、色の濃さ(COLOR)、鮮明度(SHARP)をそれぞれ101段階に調整できます。



1 HUE、COLORまたはSHARPボタンを押して、調整したい項目を選ぶ。
押したボタンが点灯し、表示窓に選んだ項目が表示されます。

```
SETUP:    COLOR ---050
```

2 UP、DOWNボタンを押して、調整する。
UP ボタンを押すと、表示窓の値が 0(MIN)→100(MAX)の順に変わります。DOWN ボタンを押すと逆向きに変わります。

```
SETUP:    COLOR ---052
```

調整項目	ボタン	調整のしかた	
		UPボタンを押すと	DOWNボタンを押すと
色合い	HUE	緑がかる	紫がかる
色の濃さ	COLOR	色が濃くなる	色が薄くなる
鮮明度	SHARP	はっきりした画像になる	柔らかな画像になる

3 調整を終えるには、DISPLAY MODE(VIDEO、MIX、CG)ボタンのうち点灯しているボタンを押す。

ご注意

- 調整中、約10秒間コントローラーのどのボタンも押さないでいると、表示窓は自動的に調整前の画面に戻ります。調整を続けたいときは、もう一度調整したい項目のボタンを押してください。
- PAL方式の機器からの映像の場合は、HUEの調整はできません。

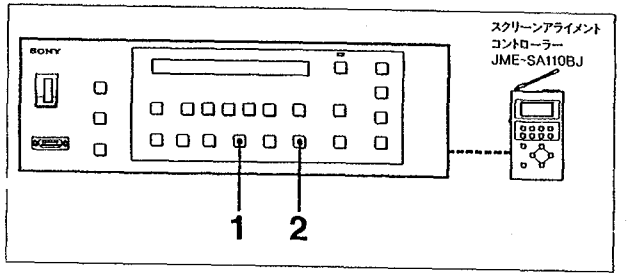
出荷時の設定値に戻すには

HUE、COLOR、SHARP ボタンを押して点灯させてから、STANDARD ボタンを押します。出荷時に設定してある標準レベル(50)に戻ります。

ジャンボトロンシステムの他の機器をコントロールする

スクリーンアライメントコントローラーJME-SA110BJを使う

スクリーンアライメントコントローラーを本機に接続するか、あるいは、ABCインターフェースとの間で電波を送受信させて動作チェックのためのテスト信号を表示させたり、スクリーン上の画像の位置や縮小値をコントロールします(◆詳しくは、JME-SA110BJの取扱説明書をご覧ください。)この場合、本機でスクリーンアライメントコントローラーとICU/スクリーンの接続を有効にしたり、無効にしたりできます。



スクリーンアライメントコントローラーを使うときは

1 REMOTE ONボタンを押して、ボタンを点灯させる。

2 SCREEN CONTROLボタンを押して、ボタンを点灯させる。

```
SCREEN CONTROL MODE
```

スクリーンアライメントコントローラーが有効になります。ICUコントローラーの他のボタンは機能しなくなります。

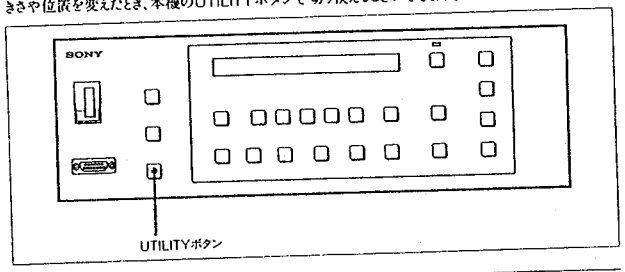
スクリーンアライメントコントローラーを使わないときは

SCREEN CONTROLボタンを押して、ボタンの点灯を消しておきます。

空調機や照明、その他の機器をコントロールする

本機のUTILITYボタンを使うと、ICUに接続した特定の機器の電源の入/切やその他いろいろな機能をコントロールできます。コントロールしたい機器をICU裏面のUTILITY端子に接続し、ICUコントローラー背面のUTILITY SELECTスイッチで、コントロールのしかたを切り換えます。

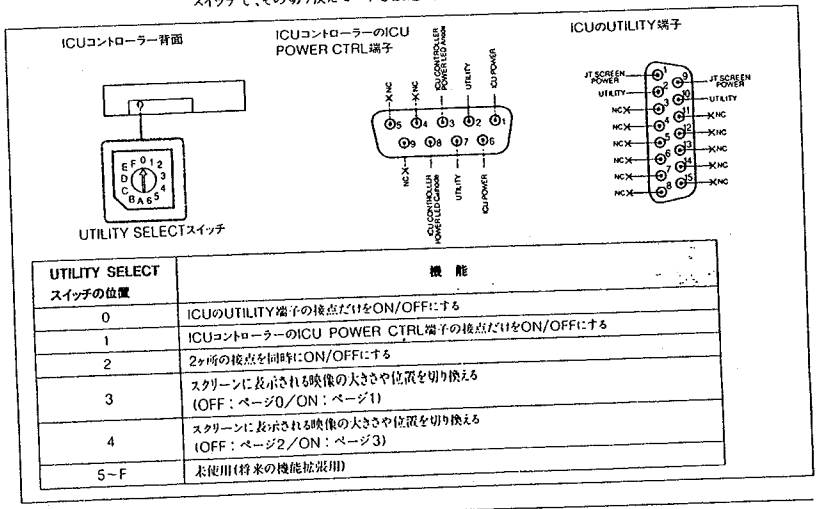
また、スクリーンアライメントコントローラーJME-SA110BJでスクリーンに表示されるビデオ映像の大きさや位置を変えたとき、本機のUTILITYボタンで切り換えることができます。



UTILITY SELECTスイッチの切り換え

UTILITY の接点は、ICU の UTILITY 端子(2、10 ピン)と ICU コントローラーの ICU POWER CTRL端子(2、7ピン)の2か所にあります。ICUコントローラー背面のUTILITY SELECTスイッチで、2か所の接点のON/OFFのしかたを設定します。

また、スクリーンアライメントコントローラーJME-SA110BJでスクリーンに表示されるビデオ映像の大きさや位置を4種類設定して記憶することができます(ページ0、1、2、3)。本機のUTILITY SELECTスイッチで、その切り換えモードを設定します。スイッチの切り換えは、電源を切ってから行ってください。



UTILITY SELECT スイッチの位置	機能
0	ICUのUTILITY端子の接点だけをON/OFFにする
1	ICUコントローラーのICU POWER CTRL端子の接点だけをON/OFFにする
2	2ヶ所の接点を同時にON/OFFにする
3	スクリーンに表示される映像の大きさや位置を切り換える (OFF：ページ0/ON：ページ1)
4	スクリーンに表示される映像の大きさや位置を切り換える (OFF：ページ2/ON：ページ3)
5~F	未使用(将来の機能拡張用)

UTILITYボタンでコントロールするには

UTILITYボタンを1秒以上押し続けると接点がONになります(または、ビデオ映像の大きさや位置が切り換わります)。もう一度1秒以上押すと、OFFになります。

トラブルチェック

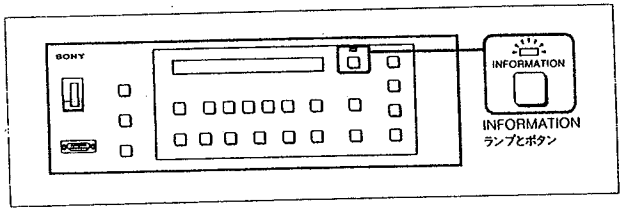
本機にはスクリーンの異常を知らせるインフォメーション機能がついています。

インフォメーション機能を使う

スクリーンのユニットに異常があると

ジャンボトロンスクリーンの電源が入って約1分後にユニットのチェックを開始します。

ユニットに異常があると、本機のINFORMATIONランプが点滅します。



ユニットの異常箇所を知るには

INFORMATIONボタンを押します。

表示窓にINFORMATIONの件数が表示されます。

例：10件の異常がある

```
10 INFORMATION Exist
```

表示窓に異常のあるユニットの番品が表示されます。

例：03-01番ユニットに電気系の故障

```
01: UNIT FAILURE ADRS 03-01*
```

エラー番号　エラーの内容　ユニット番号

＊複数のスクリーンを組み合わせている場合は、ユニット番号の前にスクリーン番号が表示されます。
(例：ADRS 2-03-01)

例：05-01番ユニットに通信系の故障

```
02:CommunicationErrorADRS05-01
```

ユニット番号の見かた

スクリーン左上端 →

01-01	02-01	03-01	04-01	...
01-02	02-02	03-02	04-02	...
01-03	02-03	03-03	-------	
01-04	02-04	03-04	-------	
01-05	02-05	⋮		
⋮	⋮	⋮		

複数のユニットに異常がある場合は

UP、DOWNボタンを押すたびに表示窓の情報が変わります。

セルの故障を知るには

セルに故障がある場合、そのユニット番号とセルの位置を表示させることができます。
セルの故障チェックモードに入ると、数秒間ジャンボトロンスクリーンの画面が乱れます。

1 INFORMATIONボタンを1秒以上押す。
セルチェックモードになり、次の表示が出ます。

```
CELL CHECK MODE OK→UP/CANCEL→DOWN
```

2 UPボタンを押す。
セルチェックが始まります。このとき画面が数秒間乱れます。

```
CELL FAILURE CHECKING NOW...
```

数秒後、故障のセルが見つかった場合は表示窓に故障セルの件数が表示され、本機のINFORMATIONランプが点滅します。また故障セルのあるユニット裏面のインジケーターが点灯します。

例：セル2個が故障

```
CELL FAILURE Found (02 Errors)
```

3 DOWNボタンを押す。
故障のセルの位置が表示されます。

例：01-03番ユニットの1-1番セルが故障

```
01: CELL FAILURE ADRS 01-03'/1-1
```

エラー番号　エラーの内容　ユニット番号　セル番号

＊複数のスクリーンを組み合わせている場合は、ユニット番号の前にスクリーン番号が表示されます。
（例：ADRS 2-03-01）

セル番号の見かた

ユニット左上端 →

1-1	2-1	3-1	4-1
1-2	2-2	3-2	4-2
1-3	2-3	3-3	4-3

次の故障セルの位置を知るには、DOWNボタンを押します。（UP、DOWNボタンを押すたびに表示窓の情報が変わります。）

故障のセルが見つからなかった場合
手順2で次の表示が出ます。

```
NO CELL FAILURE
```


エラーメッセージ一覧

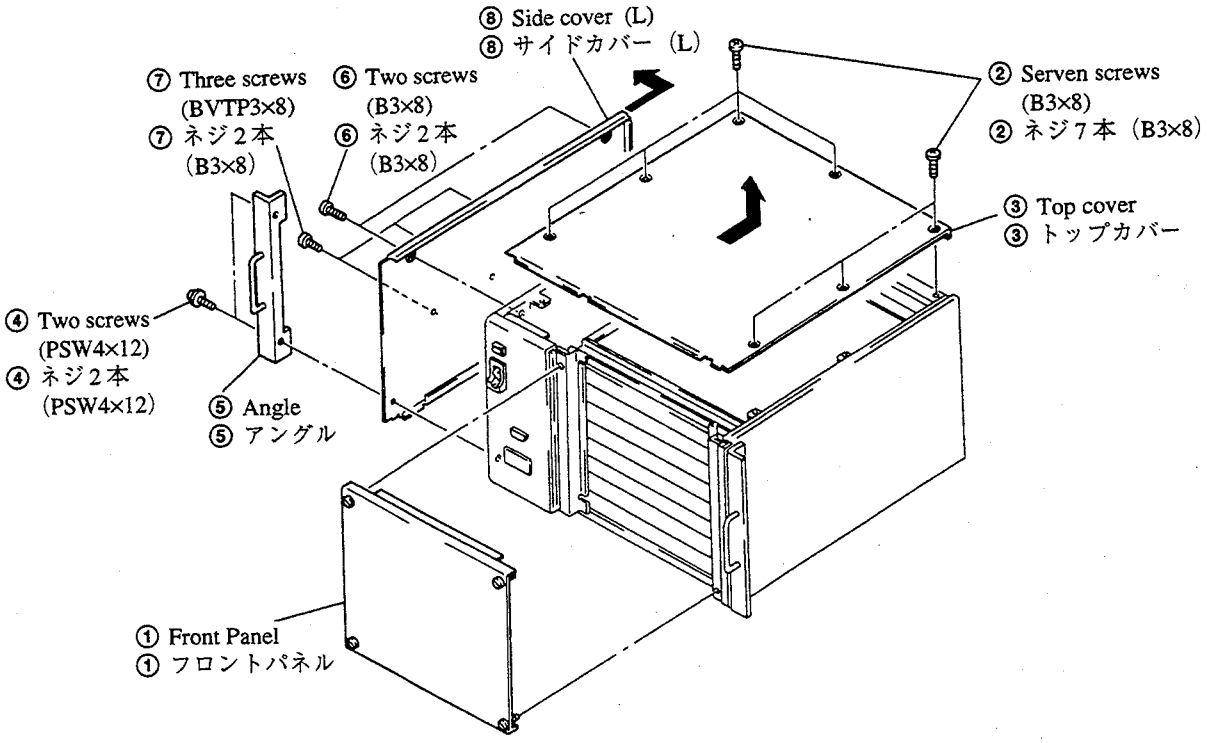
表示 Error:	意味	原因／対策
ICU Connection Error	ICUとICUコントローラーの接続が正しくない。	ICUの電源を入れる。 次のことをチェックする。 ・プラグはきちんと差し込まれているか ・正しいコネクターに接続されているか ・接続ケーブルが断線していないか
REMOTE OFF	ICUコントローラーがリモートオフの状態です。	ICUコントローラーのREMOTE ONボタンを押してリモートオンにする。
JT POWER OFF	ジャンボトロンスクリーンの電源が入っていません。	JUMBOTRON POWERボタンを押してスクリーンの電源を入れる。
ABC Connection Error	ICUとABCインターフェースとの接続が正しくありません。	次のことをチェックする。 ・ABCインターフェースの電源は入っているか ・プラグはきちんと差し込まれているか ・正しいコネクターに接続されているか ・接続ケーブルが断線していないか
Another Controller Remoted	他のICUコントローラーが先にリモートオンになっていた。	他のICUコントローラーREMOTE OFFのボタンを押す。
MODE Error	現在のモードでは、今押したボタンは受け付けません。	映像表示モードがCGのときはHUE、COLOR、SHARP、の調整はできません。 DISPLAY MODE VIDEOボタンを押してビデオモードにしてください。
SCREEN SIZE not initialized	スクリーンの大きさがイニシャライズされていません。	ご契約時の営業所のサービス担当者にお問い合わせください。
SCREEN Warming Up	ジャンボトロンスクリーンの電源を立ち上げています。	JUMBOTRON POWERボタンを押してスクリーンの電源を入れると約30秒間ウォーミングアップを行います。この間、REMOTE OFFボタン、SCREEN CONTROLボタン、INFORMATIONボタンは動作しません。このメッセージが消えてから操作してください。
PAL MODE	ビデオ入力信号はPAL方式です。	PAL方式のビデオ入力信号の場合、HUEの調整はできません。

ジャンボトロンシステムの保守や点検などについては、ご契約時の営業所にお問い合わせください。
サービス担当者が対応いたします。

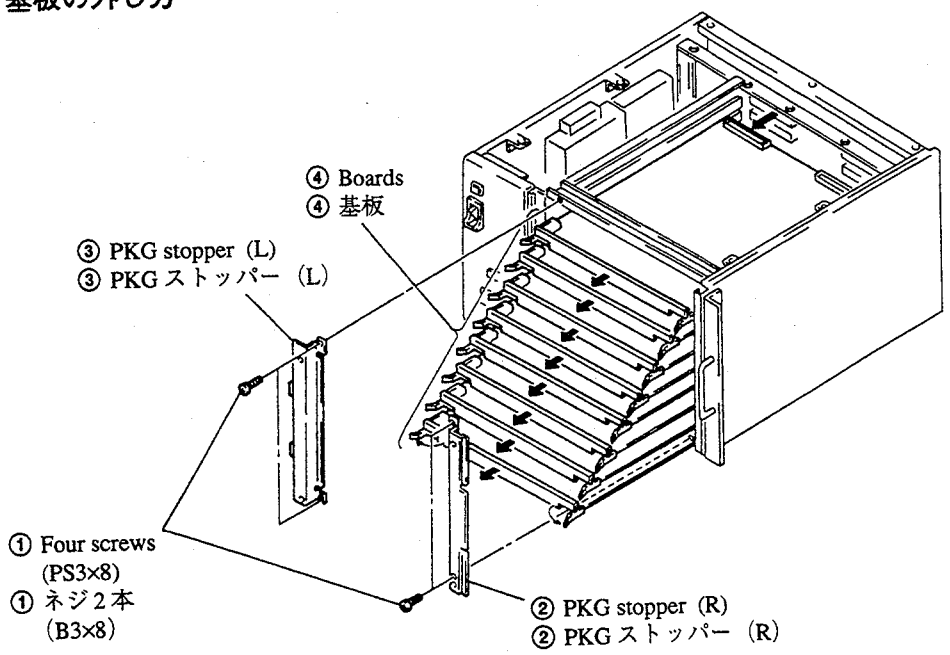
SECTION 2. DISASSEMBLYS
2. 外し方

NOTE: Follow the disassembly procedure in the numerical order given.
注意：番号順に従って外してください。

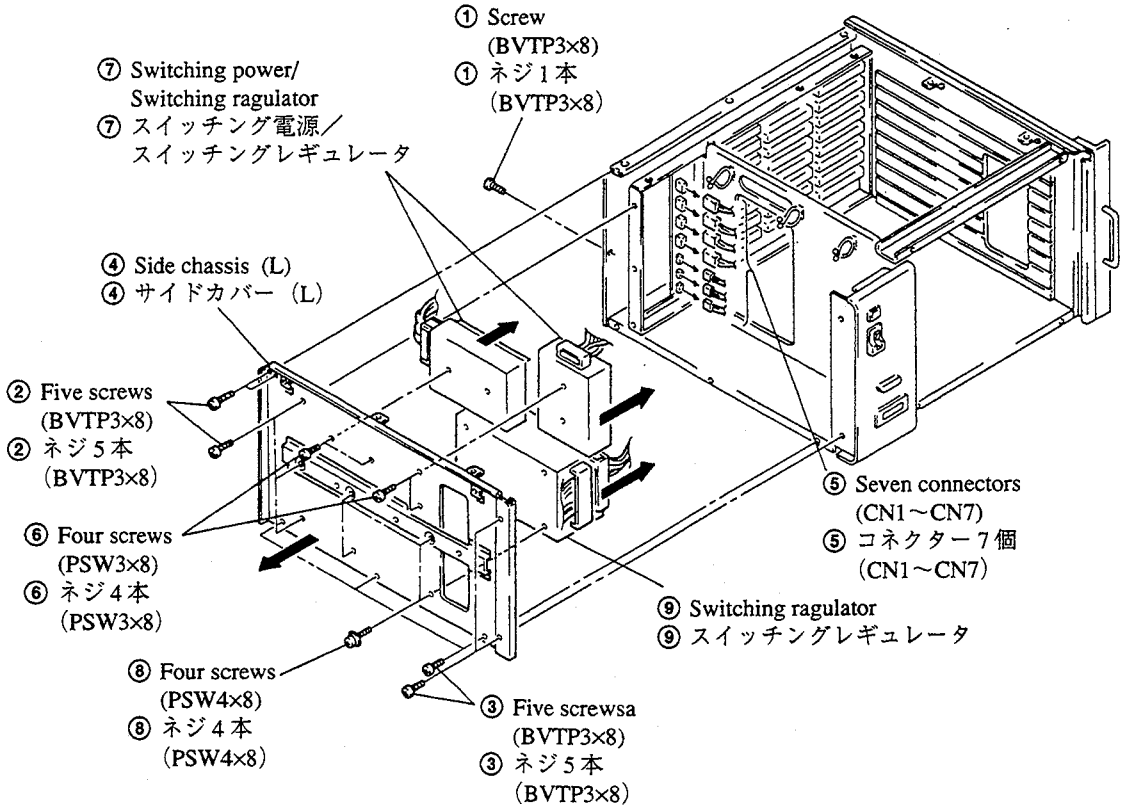
2-1. FRONT PANEL/TOP COVER/SIDE COVER (L) REMOVAL
2-1. フロントパネル／トップカバー／サイドカバー（L）の外し方



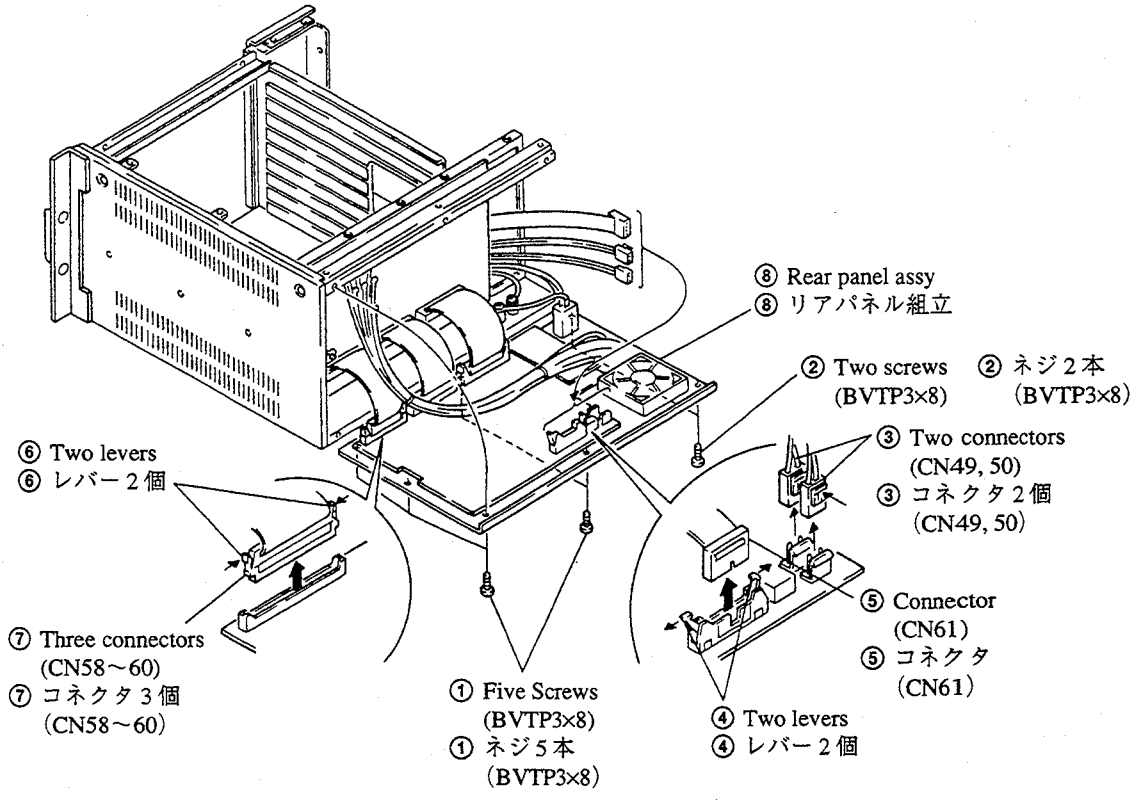
2-2. MAIN BOARD REMOVAL
2-2. 基板の外し方



2-3. SWITCHING POWER/SWITCHING REGULATOR REMOVAL
2-3. スイッチングレギュレータの外し方



2-4. REAR PANEL ASSY REMOVAL
2-4. リアパネル組立の外し方



SECTION 3
ELECTRICAL ADJUSTMENTS

3-1. EDD BOARD

1-1. RGB SIGNAL LEVEL ADJUSTMENT

1) Input an R.G.B. SYNC signals(0.7 Vp-p).
2) Set the SW1[G-1] and SW2[F-1] to OFF.
3) Connect an oscilloscope to TP9 (R-Y)[A-3], TP10(Y) [A-3] and TP11(B-Y)[C-3].
4) Adjust with RV6[A-5], RV7[B-5], RV8[C-5] for the 1.8Vp-p.

1-2. COMPONENT SIGNAL LEVEL ADJUSTMENT

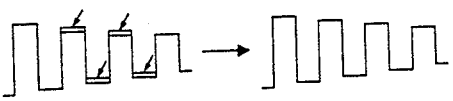
1) Input an R-Y, Y, B-Y SYNC signals(0.7Vp-p).
2) Set the SW1[G-1] to OFF and SW2[F-1] to ON.
3) Connect an oscilloscope to TP9(R-Y) [A-3], TP10(Y) [A-3] and TP11(B-Y)[C-3].
4) Adjust with RV4[A-11], RV12[B-11], RV5[C-11] for the 1.8Vp-p.

1-3. PAL/NTSC FREQUENCY ADJUSTMENT

1) No input signal.
2) Set the SW3[E-1] to OFF.
3) Connect a Frequency counter to TP15(K-7).
4) Adjust with CV2[G-8] for 17.734475 ± 200Hz.
5) Set the SW3[E-1] to ON.
6) Adjust with CV1[G-7] for 14.318180 ± 200Hz.

1-4. PAL SIGNAL LEVEL ADJUSTMENT

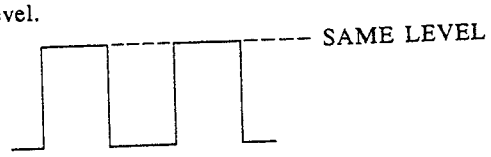
1) Input a PAL COLOR BAR signal.
2) Set the SW1[G-1] to ON and SW2[F-1] to OFF.
3) Connect an oscilloscope to TP14[G-2].
4) Set the RV2[D-1] to maximum position.
5) Adjust CV3[D-1] so that the waveform to slow.
6) Adjust RV2[D-1] and RV3[A-2] so that the level to minimum.



7) Adjust DAT1[D-1] so that the line crowring to minimum.
8) Adjust RV1[H-1] so that the White position level to 0.7Vp-p.
9) Adjust RV10[F-10] so that the Blue position level to 0.525Vp-p.

1-5. NTSC SIGNAL LEVEL ADJUSTMENT

1) Input an NTSC COLOR BAR signal(100% White).
2) Set the SW1[G-1] to ON and SW2[F-1] to OFF.
3) Connect an oscilloscope to TP12[G-2].
4) Short circuit between pin ④ and ㊼ of IC31[F-1].
5) Adjust CV4[D-1] so that the waveform to slow.
6) Disconnect short circuit.
7) Adjust with RV9[F-10] and RV10[F-11] for the same level.



1-6. FREQUENCY CHARACTERISTIC ADJUSTMENT

1) Input a sweep signal (B/W mode).
2) Adjust RV11[F-11] and smoothly decrease the waveform with less ridges.

1-7. CLAMP LEVEL ADJUSTMENT

1) Input a COLOR BAR signal.
2) Adjust RV13[U-3] to set the voltages at ㉔ pin of IC7 [S-4] and at the Black level of ㉑ pin(Y signal) at a same value.

3-2. MIX BOARD

2-1. SUB CARRIER FREERUN ADJUSTMENT (PAL MODE)

1) No signal input.
2) Set the SW3 [E-1 on EDD BOARD] to OFF.
3) Connect an FET probe of oscilloscope to TP5[C-12] and connect a frequency counter to ch out of oscilloscope.
4) Adjust with CV2[C-13] for 4.433618 ± 50Hz.

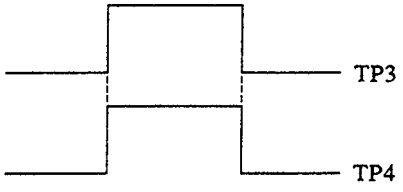
2-2. SUBCARRIER FREERUN ADJUSTMENT (NTSC MODE)

1) No signal input.
2) Set the SW2[F-1 on EDD BOARD] to ON.
3) Connect an FET probe of oscilloscope to TP14[C-15] and a frequency counter to ch out of oscilloscope.
4) Adjust with CV1[C-15] for 3.579545 ± 50Hz.

3-3. CGI BOARD

3-1. CLOCK PHASE ADJUSTMENT

1) Set the SW2[R-1] to ON(TEST).
2) Power to ON.
3) Connect an oscilloscope to TP3[H-3] and TP4[G-3].
4) Adjust with RV3[E-3] for same pulse width.



3-2. VIDEO SIGNAL EDGE DET ADJUSTMENT

1) Connect an oscilloscope to TP2[G-9].
2) Adjust with RV1[C-6] for the 0.3V DC.

3-3. A/D CONVERTER REF VOLTAGE ADJUSTMENT

1) Connect an oscilloscope to TP1[G-9].
2) Adjust with RV2[C-5] for the −0.2V DC.

3-4. A/D CONVETER INPUT LEVEL ADJUSTMENT

1) Input a REFERENCE signal(0.7Vp-p Image : 4=Raster).
2) Adjust RV7[F-10], RV8[D-10], RV9[B-10] so that output becomes 03H of IC174[F-7], 175[D-7], 176[B-7].
3) Input a REFERENCE signal(0.7Vp-p Image : 25=Flat)
4) Adjust RV4[E-9], RV5[C-9], RV6[A-9]so that output becomes E0H of IC174[F-7], 175[D-7], 176[B-7].

3. 電気調整

3-1. EDD基板

3-1-1. RGB 信号レベルの調整

1）R.G.B.同期(SYNC)信号（0.7Vp-p)を入力します。
2）SW1(G-1)とSW2(F-1)をOFFにセットします。
3）オシロスコープをTP9[R-Y](A-3)、TP10[Y](A-3)及びTP11 (B-Y)(C-3)に接続します。
4）1.8Vp-pになるようにRV6(A-5)、RV7(B-5)、RV8(C-5)を調整します。

3-1-2. コンポーネント信号レベルの調整

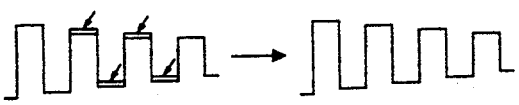
1）R-Y, Y, B-Y各同期(SYNC)信号[0.7Vp-p]を入力します。
2）SW1(G-1)をOFFに、SW2(F-1)をONにセットします。
3）オシロスコープをTP9[R-Y](A-3)とTP10[Y](A-3)とTP11 [B-Y](C-3)に接続します。
4）1.8Vp-pになるようにRV4(A-11)、RV12(B-11)、RV5(C-11)を調整します。

3-1-3. PAL/NTSC 周波数調整

1）入力信号なし。
2）SW3 (E-1) をOFFにセットします。
3）周波数カウンターをTP15 (K-7) に接続します。
4）CV2 (G-8) を調整して17.734475 ± 200Hzにします。
5）SW3 (E-1) をONにセットします。
6）CV1 (G-7) を調整して14.318180 ± 200Hzにします。

3-1-4. PAL 信号レベルの調整

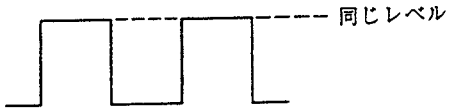
1）PALカラーバー信号を入力します。
2）SW (G-1) をONに、SW2 (F-1) をOFFにセットします。
3）オシロスコープをTP14 (G-2) に接続します。
4）RV2 (D-1) を最大位置にセットします。
5）波形が遅くなるようにCV3 (D-1) を調整します。
6）レベルが最低になるよにRV2 (D-1) とRV3 (A-2) を調整します。



7）ラインのクロウリングが最低になるようにDAT1 (D-1) を調整します。
8）白位置レベルが0.7Vp-pになるようにRV1 (H-1) を調整します。
9）青「Blue」位置レベルが0.525Vp-pになるようにRV10 (F-10) を調整します。

3-1-5. NTSC 信号のレベル調整

1）NTSCカラーバー信号［白１００％］を入力します。
2）SW1 (G-1) をONに、SW2 (F-1) をOFFにセットします。
3）オシロスコープをTP12 (G-2) に接続します。
4）IC31 (F-1) の4ピンと47ピンを短絡します。
5）波形が遅くなるよにCV4 (D-1) を調整します。
6）短絡を外します。
7）RV9 (F-10) とRV10 (F-11) を同じレベルになるように調整します。



3-1-6. 周波数特性の調整

1）スイープ信号［B/Wモード］を入力します。
2）RV11 (F-11) を調整し、隆起（山の背）がより少なくなるようにして波形を徐々に小さくします。

3-1-7 クランプレベルの調整

1）カラーバー信号を入力します。
2）RV13 (U-3) を調整して、IC7 (S-4) の21ピンの電圧と、ピン21ピン［Y信号］の黒レベルの電圧が同じ値になるようにします。

3-2. MIX 基板

3-2-1. サブキャリアーフリーランの調整（PALモード）

1）信号入力なし。
2）SW3 (EDD基板のE-1) をOFFにセットします。
3）オシロスコープのFETプローブをTP15 (C-12) に接続し、周波数カウンターをオシロスコープのch out（チャンネル出力側）に接続します。
4）CV2 (C-13) で4.433618 ± 50Hzになるように調整します。

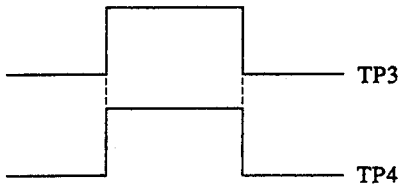
3-2-2. サブキャリアフリーランの調整（NTSCモード）

1）入力信号なし。
2）SW2 (EDDボードのF-1) をONにセットします。
3）オシロスコープのFETプローブをTP14 (C-15) に接続し、周波数カウンターをオシロスコープのch outに接続します。
4）CV1 (C-15) で3.579545 ± 50Hzになるように調整します。

3-3 CG1 基板

3-3-1.クロック位相の調整

1）SW2 (R-1) をON［TEST］にセットします。
2）電源をONにします。
3）オシロスコープをTP3 (H-3) とTP4 (G-3) に接続します。
4）RV3 (E-3) を調整して同じパルス幅になるようにします。



3-3-2. ビデオ信号エッジDETの調整

1）オシロスコープをTP2 (G-9) に接続します。
2）RV1 (C-6) を調整して0.3 ＶＤＣになるようにします。

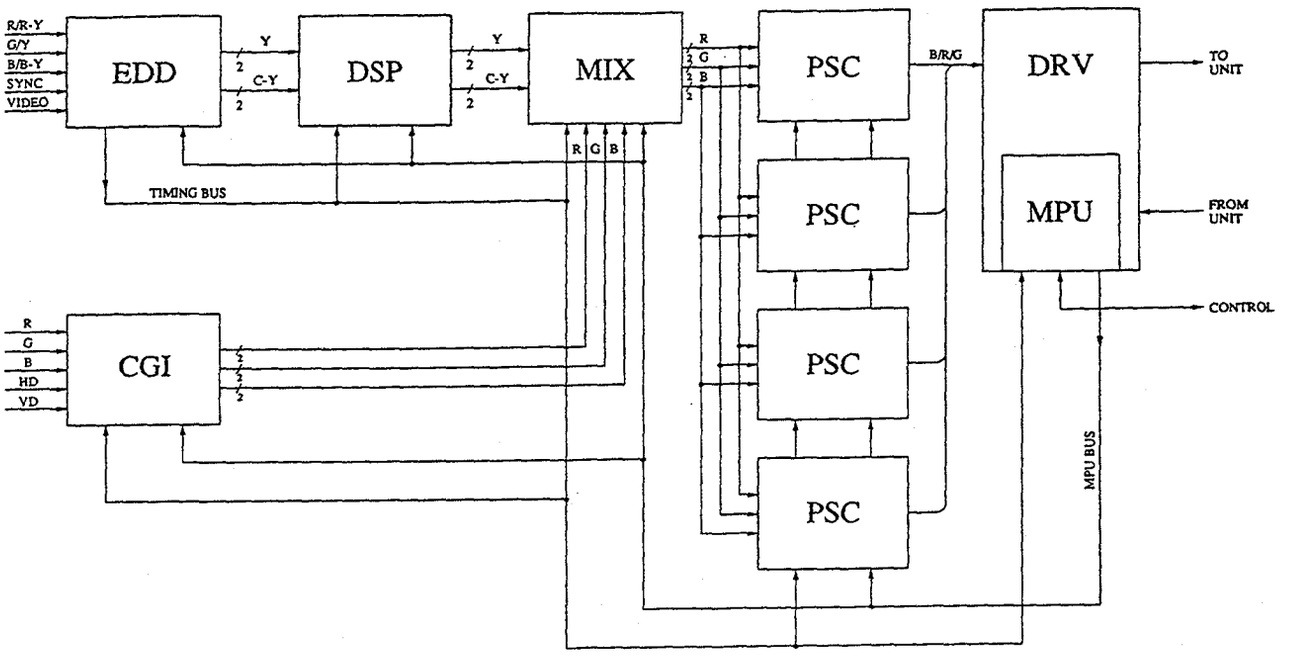
3-3-3. A/D コンバータ基準電圧の調整

1）オシロスコープをTP-1 (G-9) に接続します。
2）RV2 (C-5) を調整して - 0.2VDCになるようにします。

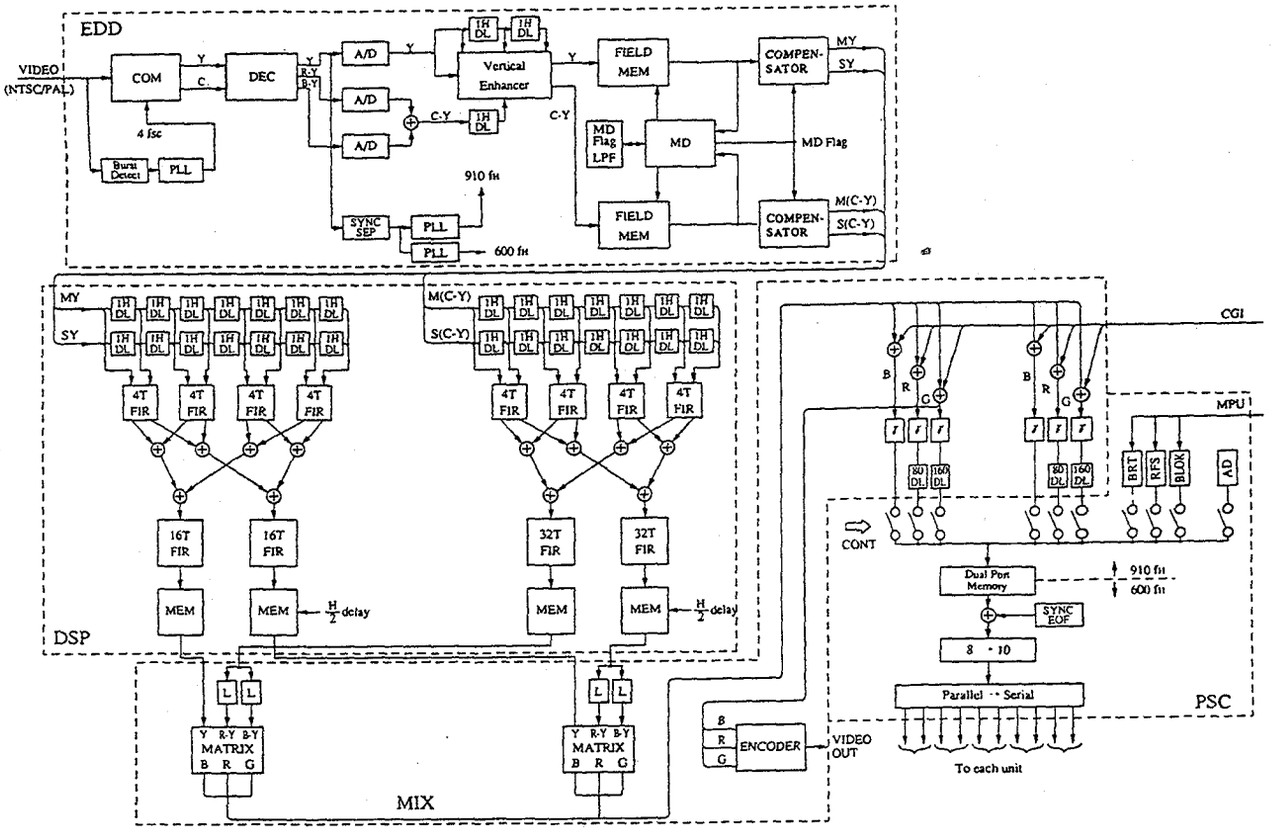
3-3-4. A/D コンバータ入力レベルの調整

1）基準信号［0.7Vp-pイメージ：4= ラスター］を入力します。
2）IC174 (F-7)、IC175 (D-7)、IC176 (B-7) の出力が、O3Hになるようにする RV7 (F-10)、RV8 (D-10)、RV9 (B-8) を調整します。
3）基準信号［0.7Vp-pイメージ：2.5= フラット］を入力します。
4）IC174 (F-7)、IC175 (D-7)、IC176 (B-7) の出力がE0Hになるようにする RV4 (F-9)、RV5 (C-9)、RV6 (A-9) を調整します。

SECTION 4
THEORY OF OPERATION



Outline



Block Diagram

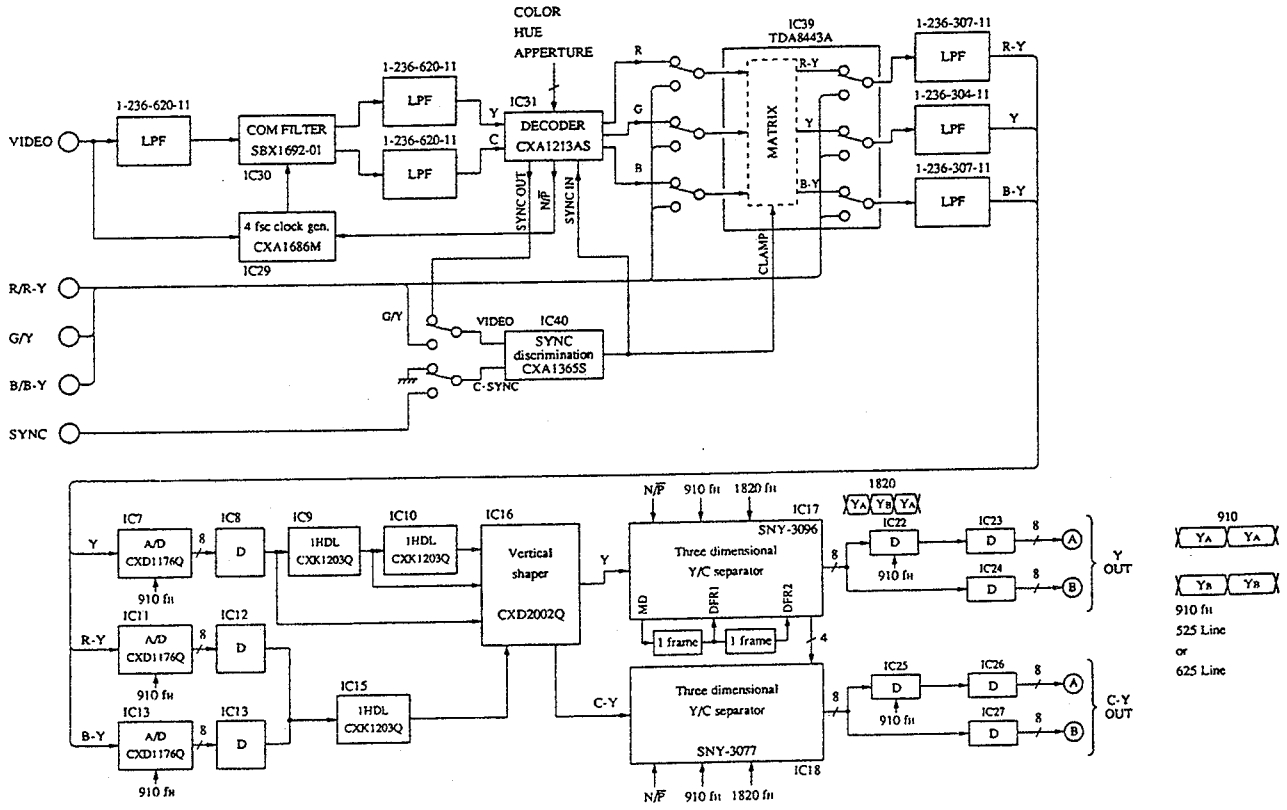


Fig. 1 EDD board block diagram

Description of JTC-P110/P110B/P110C

The input signal is either the composite (Video) or the component (Y/R-Y/B-Y) analog RGB.

If the signal input to the EDD substrate is a Video signal it undergoes Y/C separation with the comb-shaped filter, passes through the decoder and is converted into an RGB signal. Following this, it enters the RGB - Y/R-Y/B-Y matrix circuit and becomes a component signal.

If the signal is an analog RGB signal it enters the Y/R-Y/B-Y matrix circuit. If it is a component signal it is received straightly.

The input signal that has become Y/R-Y/B-Y undergoes AD conversion to become a digital signal. Following this, all internal processes are carried out digitally until the cell emits light. The color-difference signal R-Y/B-Y now undergoes time-division duplexing and becomes the two systems Y and C-Y (color-difference signal that has undergone time-division duplexing).

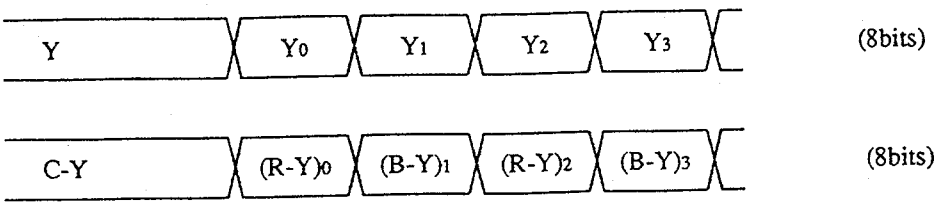


Fig. 2

The Y and C-Y signals enter the EDTV processing circuit and undergo three-dimensional Y/C division according to movement as well as scanning line compensation processing to become a non-interlace signal.

However, in order to avoid an increase in the clock frequency, the 2 lines are output simultaneously.

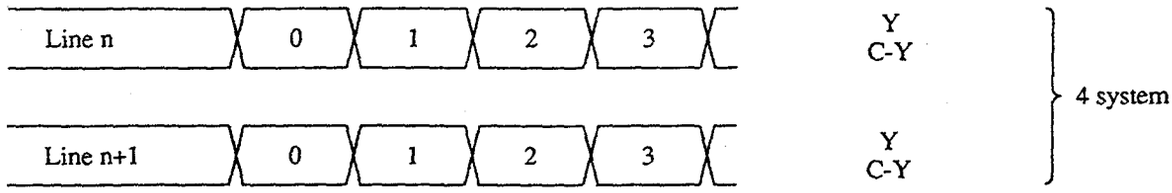


Fig. 3

Following this, reading is done by adding a half H delay to the n+1 line in relation to the n line and sending to the MIX substrate.

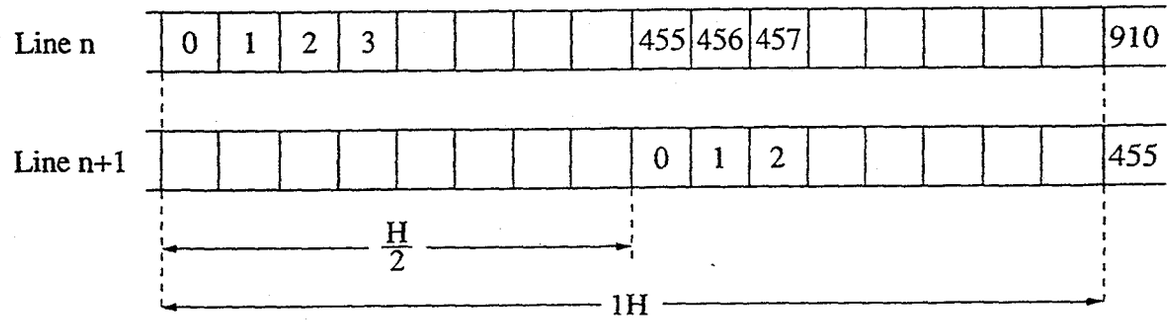


Fig. 4

In the MIX substrate there is matrix conversion from Y/C-Y to RGB to MIX with the CG signal coming from the CGI substrate.

Following this, the 0 element is removed from the signal to create a space every 240 lines for sending the control code. A delay of 80 dots each is created between B, R, and G and the signal is sent to the PSC substrate.

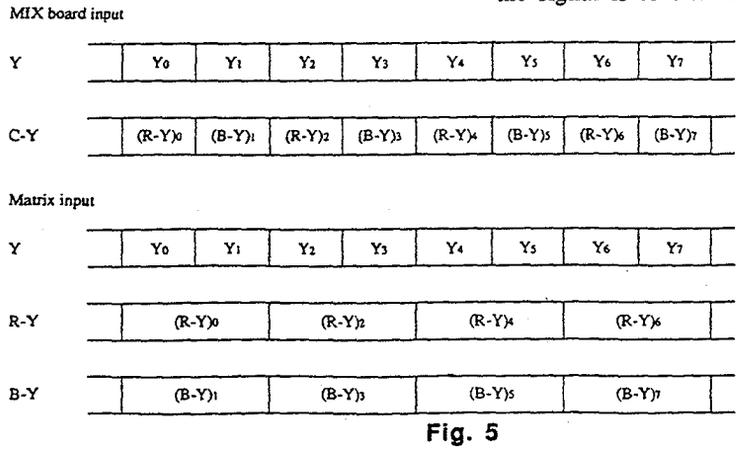


Fig. 5

Furthermore, at the EDD substrate there is generation of the timing signals : HD, VD, ZHD, O/E, 910 fH, 600 fH, 768fH, ADDRESS, LD pulse for PSC, NTSC/PAL, etc.

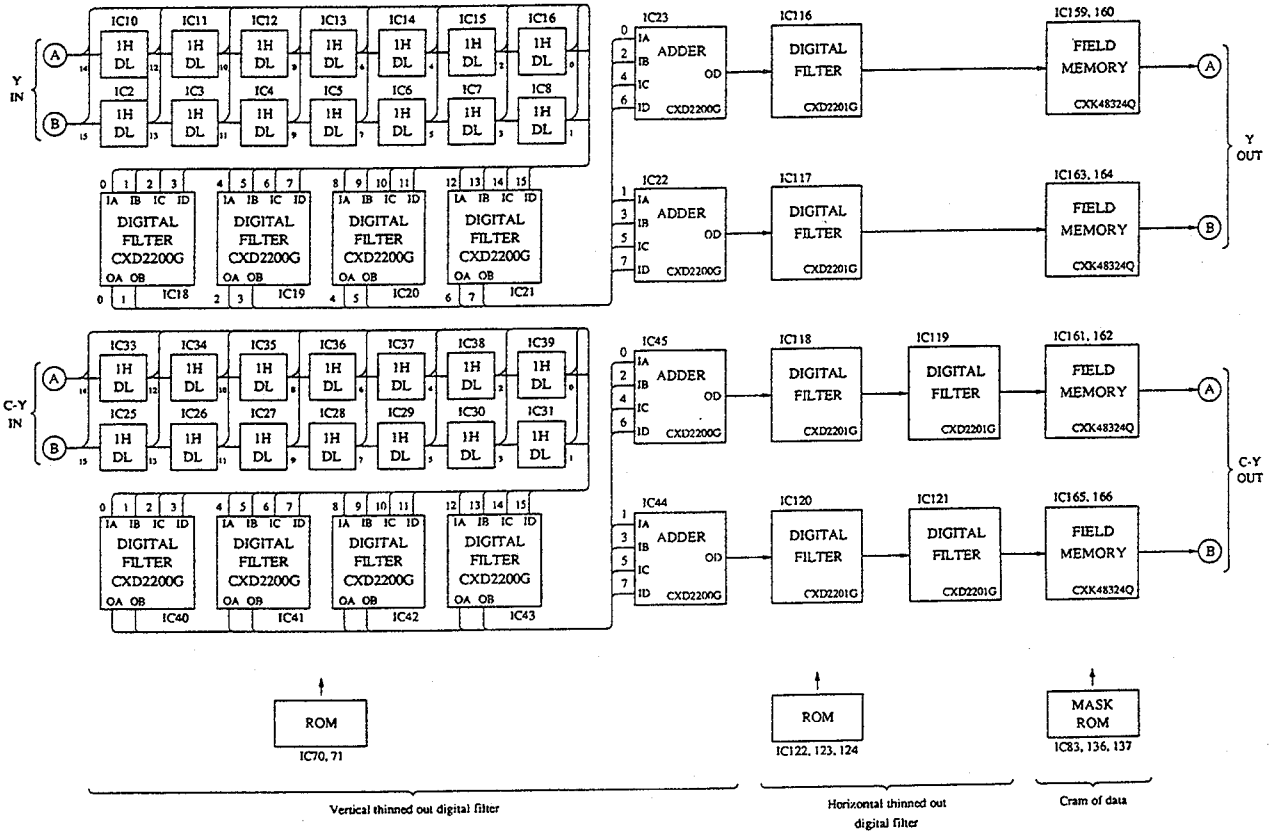


Fig. 6 DSP board block diagram

At the next DPS substrate, there is signal processing in order to convert from the standard TV signal to a dot number that conforms with the Jumbotron screen size.

First, there is interpolation/decimation in a vertical direction using a SONY digital filter (CXD2200G).

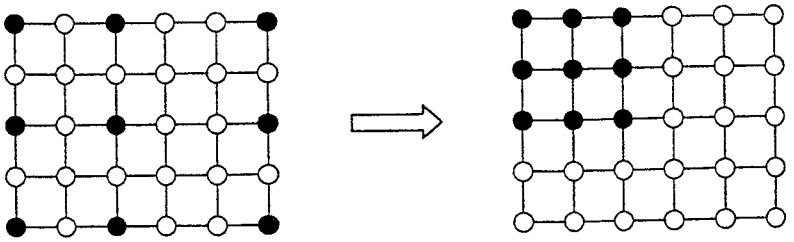
However, because this digital filter is a fixed coefficient, the coefficient is rewritten during horizontal blanking to create a variable coefficient.

Next, there is interpolation/decimation in a horizontal direction using a SONY digital filter (CXD2201G).

Because the CXD2201G is a variable coefficient, all coefficients are loaded one time during rise time and the coefficient is transformed for each dot during horizontal computation.

The digital filer is 15 taps vertically and 16 taps horizontally.

Because the image data obtained up to now is dot number data to conform with Jumbotron size, there is valid data in sporadic positions. The data is stored in the frame memory so that invalid data is not written and data can thus be compressed.



● Valid data

○ Invalid data

Fig. 7

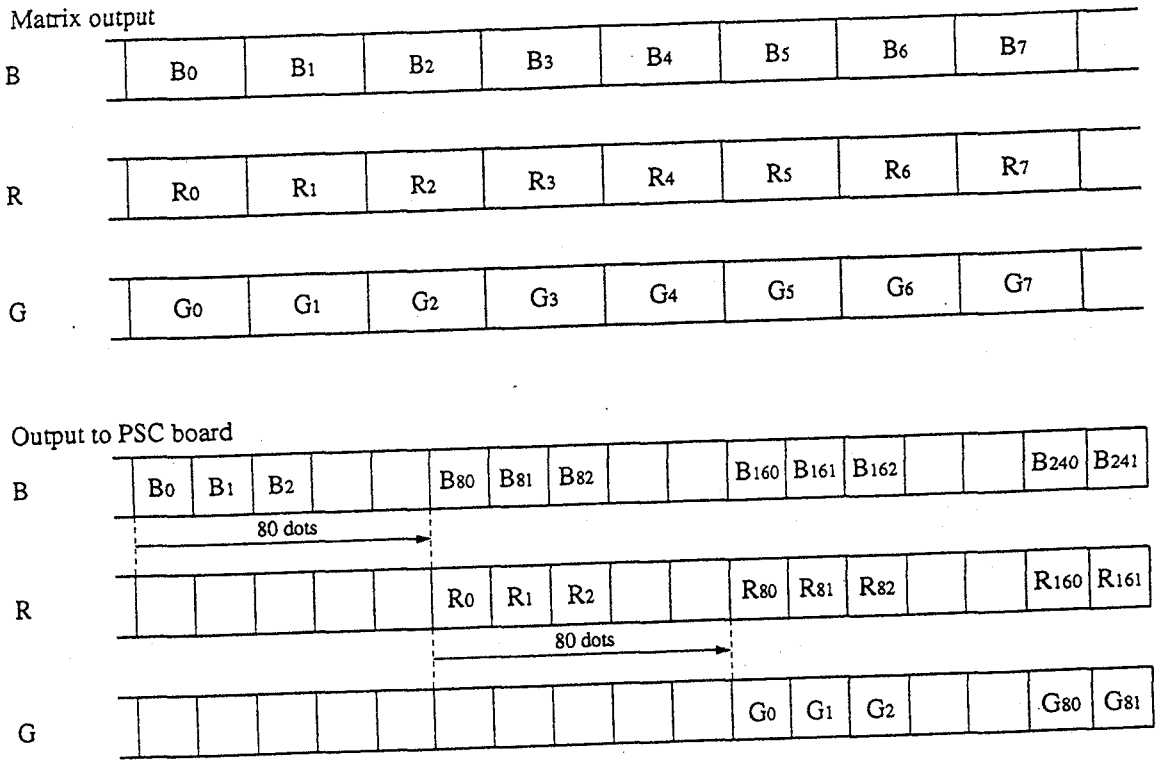


Fig. 8

The PSC board separates B, R and G data sent from MIX board every 80 dots and generates a data string of total 240 dots consisting of B=80 dots, R=80 dots and G=80 dots.

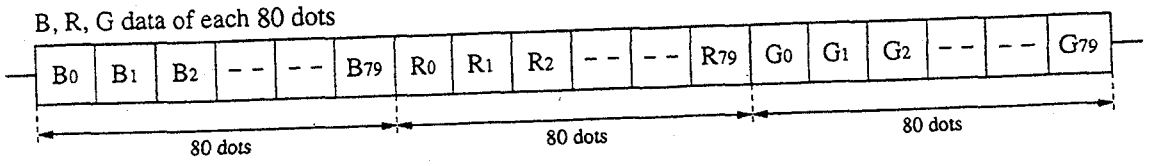


Fig. 9

Next, 10 data of every 8 addresses are stored in the order of B, R and G, and the same operation is repeated after increment of one address when G data is finished.

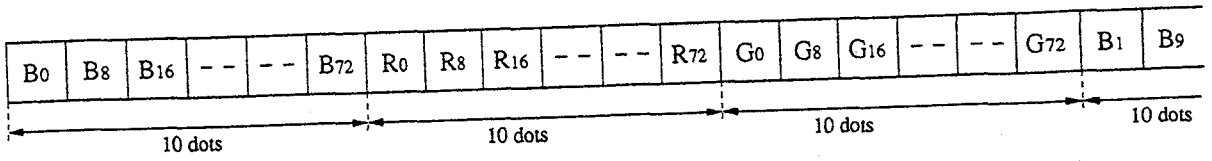


Fig. 10

This data is entered in the shift register so that 8-bit parallel data is converted to serial data.
At this time, there is 8-10 conversion in which 8-bit data is converted into 10-bit data, thus making it possible to detect errors.

After the B_0 data has undergone serial conversion, R_0 data then undergoes serial conversion.

The data array that has undergone serial conversion is as follows.

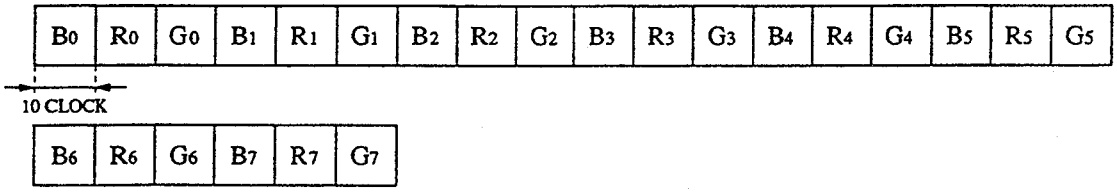
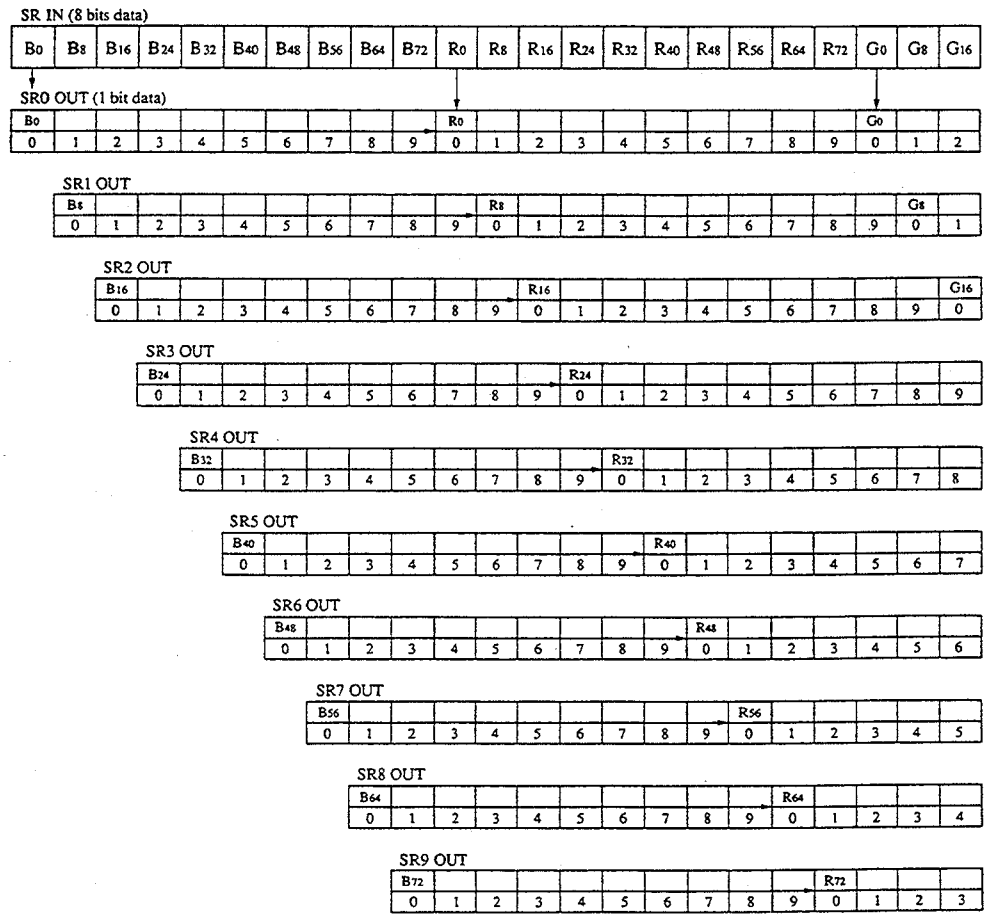


Fig. 11

This unifies the cell color array.

While B_0 is undergoing serial conversion, the other signals B8, B16, B24, B32, B40, B48, B56, B64, B72 undergo serial conversion separated by 1 clock each, thus making it possible to carry out conversion of 80 dots of data with 10 shift registers (see following pages).

Codes such as SYNC, ADDRESS and EOF are added to the data array that has undergone serial conversion so that it has a format suitable for transmission to the Jumbotron.



SR ··· Shift Register

Fig. 12

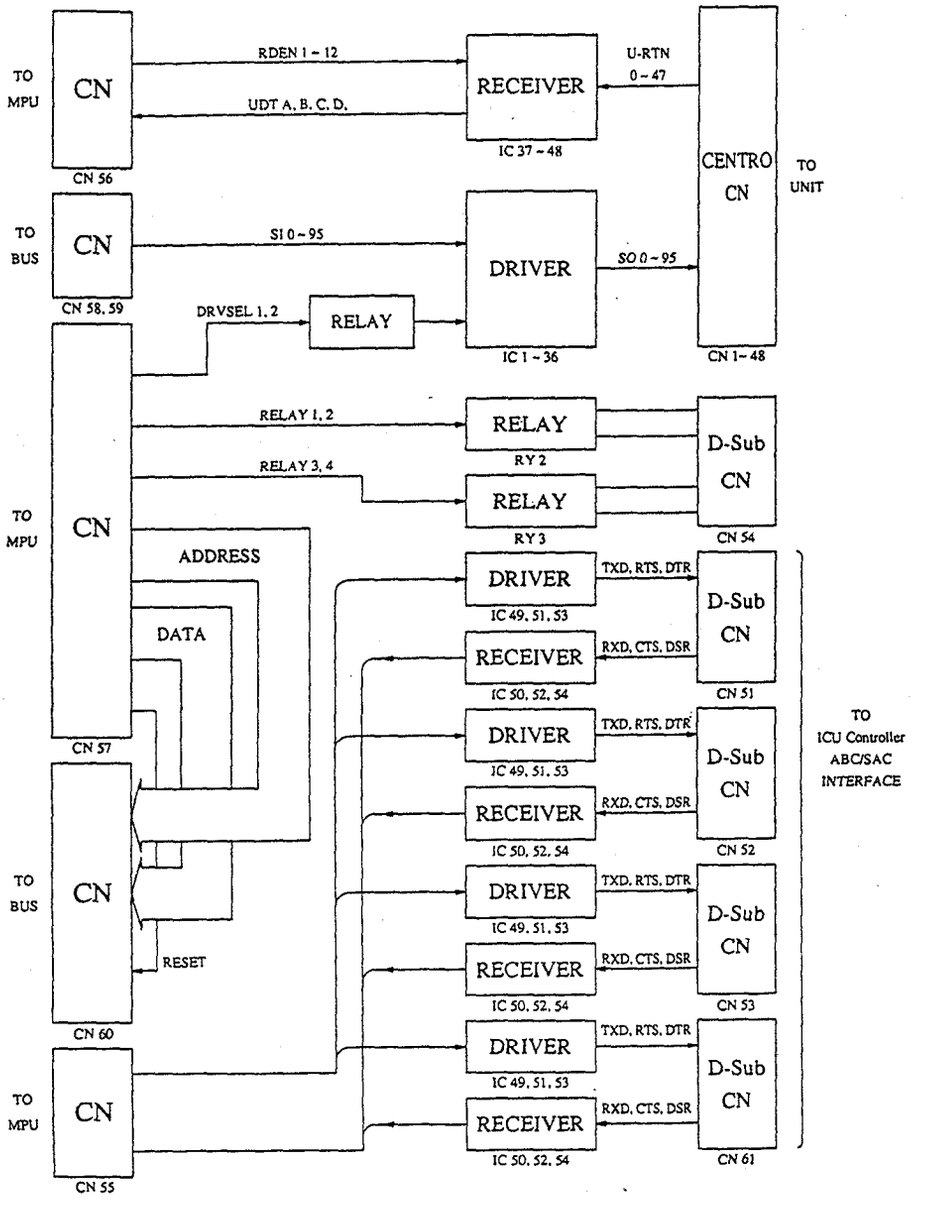


Fig. 13 DRV board block diagram

The DRV receives from the PSC the image data that has undergone conversion into the Jumbotron format. A differential line driver sends this to the individual screen units. A large current driver is used in order that one driver can drive a maximum of 96 units.

The screen unit receives 35A3 or 17A5 data from the MPU (DRVSEL 1, 2) and a relay is used to change the driver and distribute the data to the 48 Sentronics (Amphenol) connectors. There is also a function by which the return signals from the screen are received by the line receiver and sent to the MPU.

There are also line drivers and receivers to enable communication with the peripheral equipment via the D sub-connector. One of the D sub-connectors has its relay contact point connected. It is connected to the switchboard for turning the screen power and the utilities ON and OFF. In addition, this has the function of a relay when sending the address bus, data bus and rest signal from the MP to the BUS.

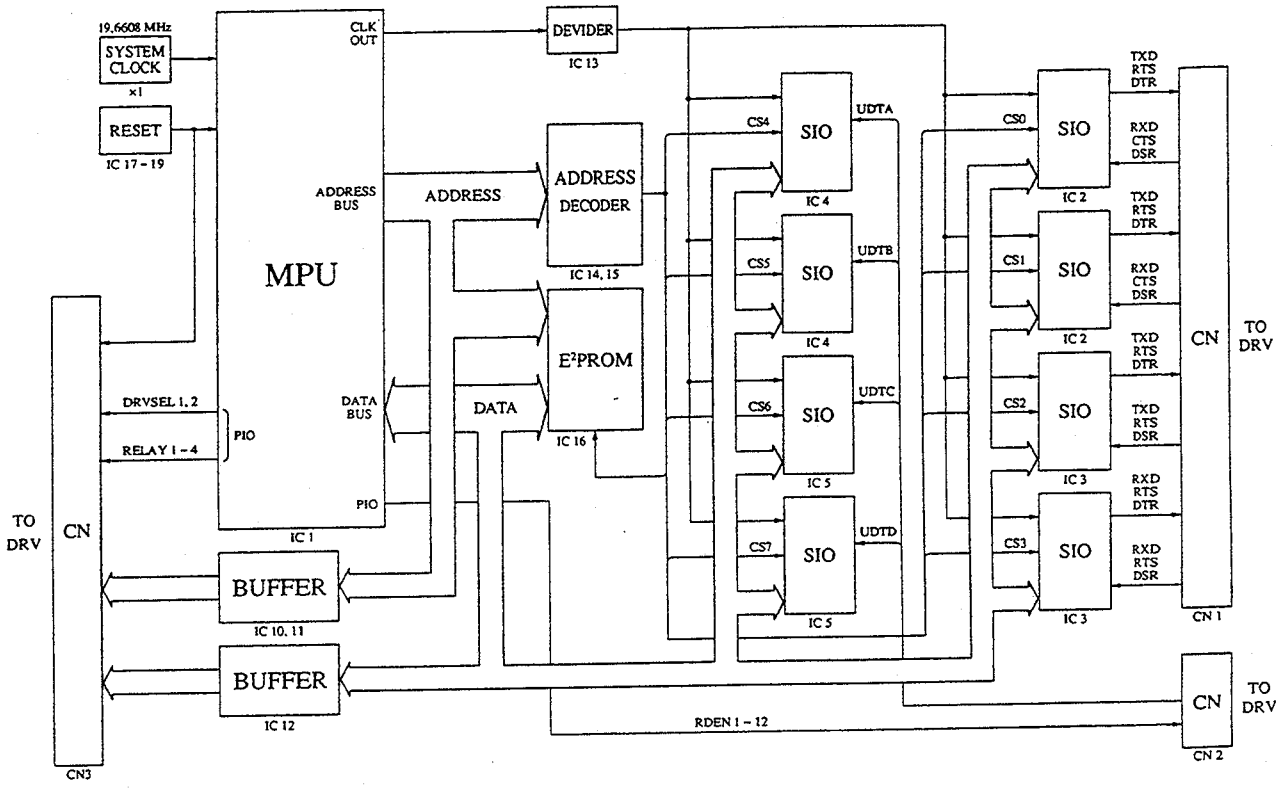


Fig. 14 MPU board block diagram

After the power starts up, the MPU sends a reset to the substrates by means of DRV and BUS, using the address bus and data bus to load the initial values including screen position, shrinking rate, hue, color, sharpness and brightness. The various data is the same data as when the power was turned off and is stored in the E^2PROM.

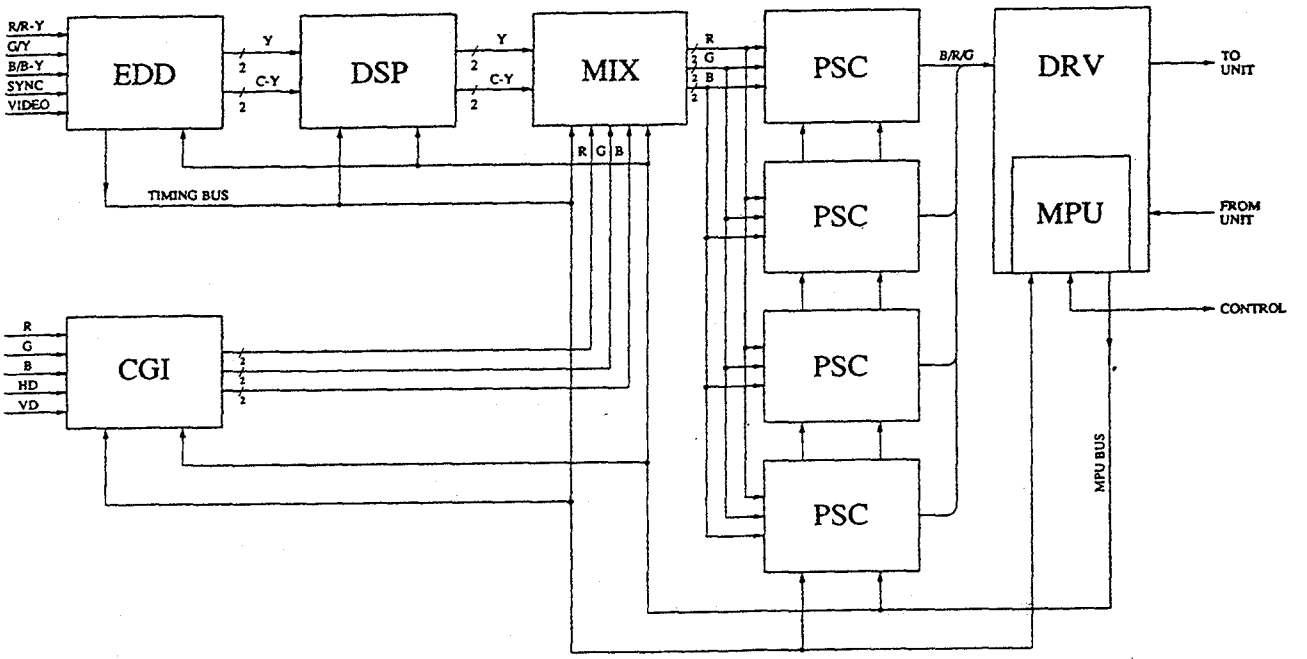
Following this, the communications data from the ICU controller and ABC/SAC interface goes to standby state.

If data has been sent, that command is sent to the various substrates.

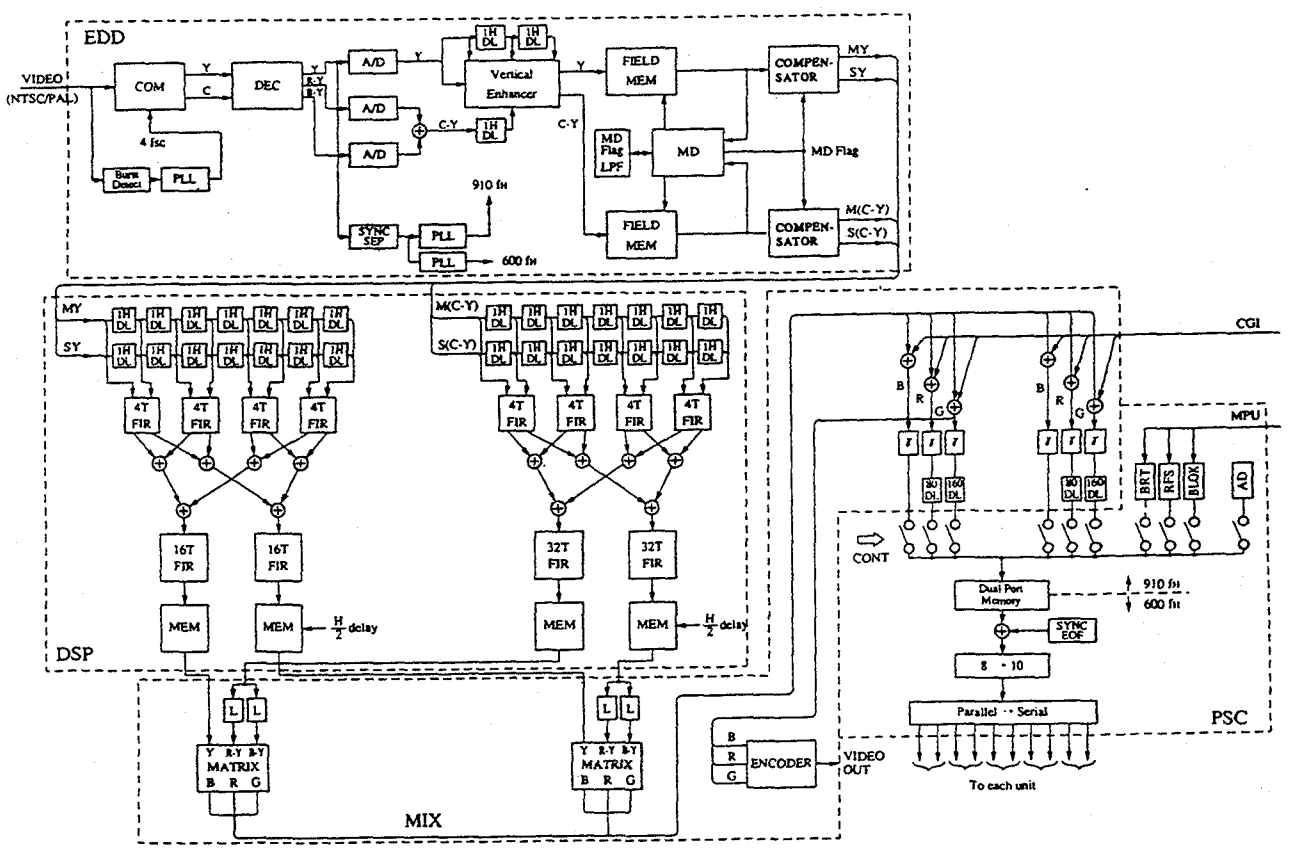
Also, while waiting for data, there is checking of the connection conditions for the peripheral equipment and monitoring of the screen conditions (unit, cell stoppage).

For communication with the screen, data is written to the RAM for the PSC control codes. It waits for the replay from the screen and check the conditions. This data is sent to a personal computer connected either to the ICU controller or to the controller so that the user can check the data.

4. 回路動作説明



概　略



ブロックダイヤグラム

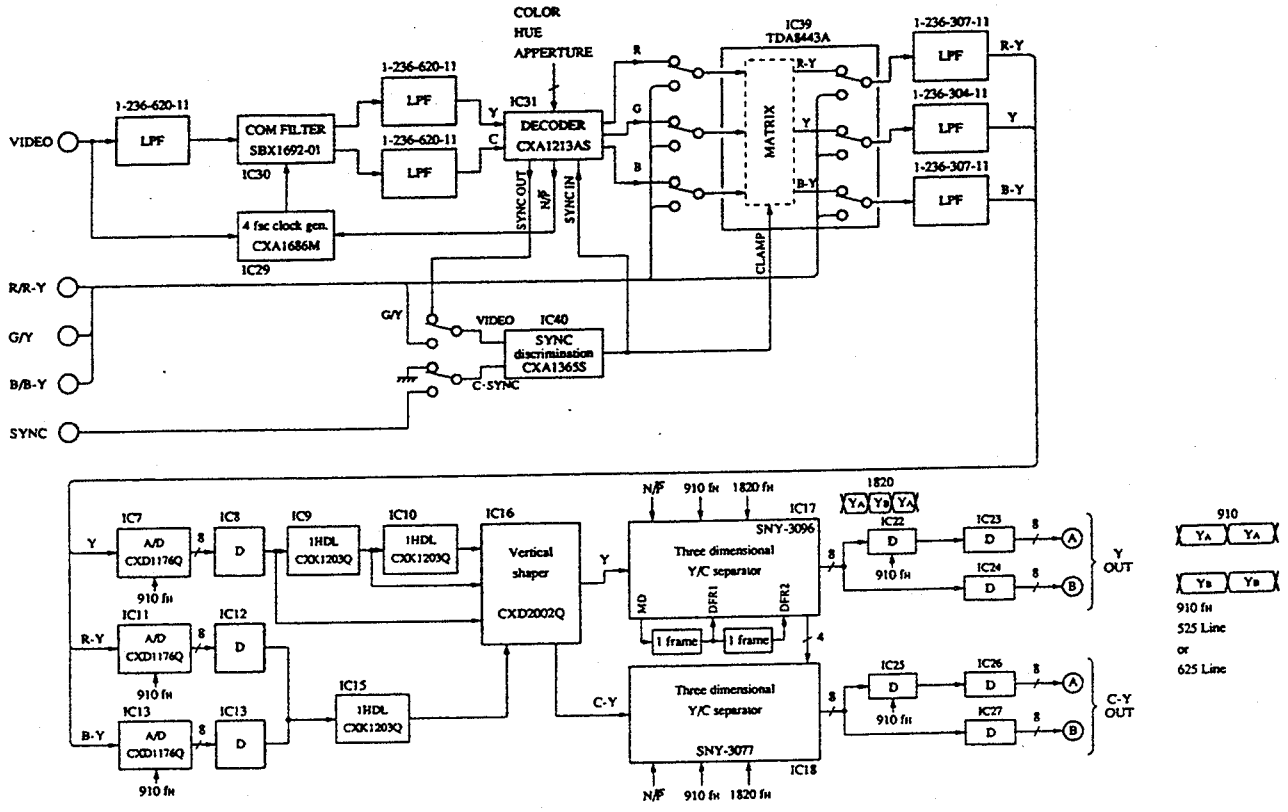


図.1 EDD基板　ブロック図

3-1. JTC-P110/P110B/P110Cの説明

入力信号はコンポジット（ビデオ）か或いはコンポーネント（Y/R－Y/B－Y）アナログRGBのどちらかにします。もしEDD基板への信号入力がビデオ信号なら、信号は楕形フィルターでY/C識別され、デコーダを通ってRGB信号に変換されます。この後で、信号はRGB-Y/R-Y/B-Yマトリックス回路に入り、コンポーネント信号になり、もし信号がアナログRGB信号なら、信号はY/R-Y/B-Yマトリックス回路に入ります。もしコンポーネント信号ならそのまま受け入れられる。Y/R-Y/B-Yになった入力信号はADコンバーターを通ってデジタル信号になる。この後で、セルが光を発光するまで全ての内部処理がデジタルで実行される。色差信号R-Y/B-Yはこれで時間分割重複処理が行われて二つのシステムYとC-Yになる（時間分割重複処理を行われた色差信号）。

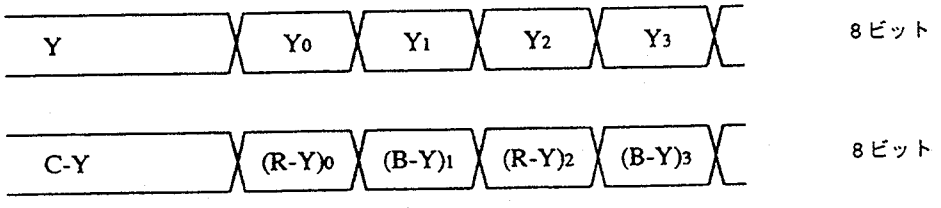


図.2

YとC-Y信号はEDTV処理回路に入り、この回路の働きによる三次元Y/C分割と走査線補正処理が行われてノンインターレス信号になる。しかし、クロック周波数を増加させないために2ラインが同時に出力される。

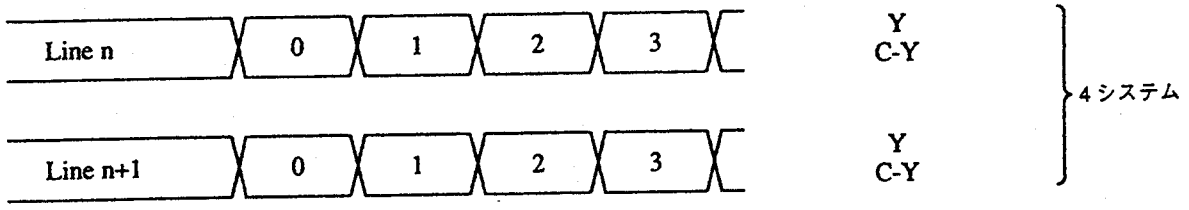


図.3

この後で、nラインに対するn+1ラインにH/2の遅延を加えて読取りが行われ、MIX基板に送られる。
MIX基板では、CGI基板から来るCG信号でY/C-YからRGB、及びMIXへのマトリックス変換が行われる。

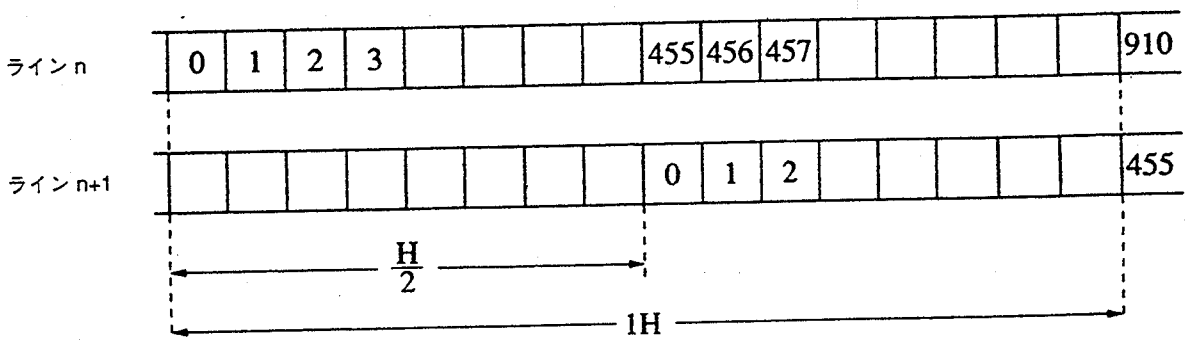


図.4

この後で、0エレメントが信号から取り除かれ、コントロールコードを送るために240ライン毎にスペースが作られる。B、RとGとの間に各80ドットの遅延が行われ、信号はPSC基板に送られる。

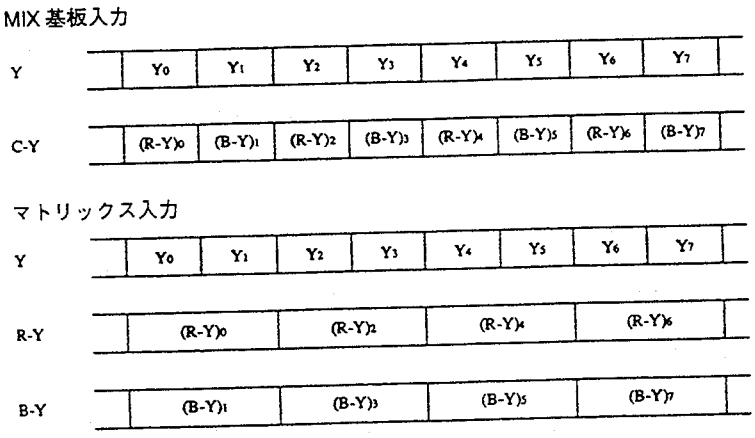


図.5

さらに、EDD基板ではタイミング信号を発生する：HD、VD、ZHD、O/E、910fH、600fH、768fH、ADDRESS、PAL用LDパルス、NTSC/PAL等である。

次のDPS基板では、標準TV信号からジャンボトロンスクリーンサイズに適合したドット数に変換するための信号処理が行われる。
最初に、「ソニー」デジタルフィルター（CXD2200G）を使った垂直方向の補間/デシメーション（十分の一を取る）がある。
しかし、このデジタルフィルターは係数が固定されているので、この係数は可変係数にするために水平ブランキングの時に書き直される。
次に、ソニーデジタルフィルター（CSD2201G）を使った水平方向の補間/デシメーション（十分の一を取る）がある。
CXD2201Gは可変係数なので、全ての係数が立ち上がり時に一度にロードされ、係数は水平計算を行っている間に各ドット毎に変形される。　デジタルフィルターは垂直１５タップで水平が１６タップである。　この時点までに取り込まれた映像データはジャンボトロンサイズに適合するドット数なので、散発的な位置で有効なデータが保存する。データはフレームメモリーに格納されて無効データの書込が行われないので、データは圧縮される。

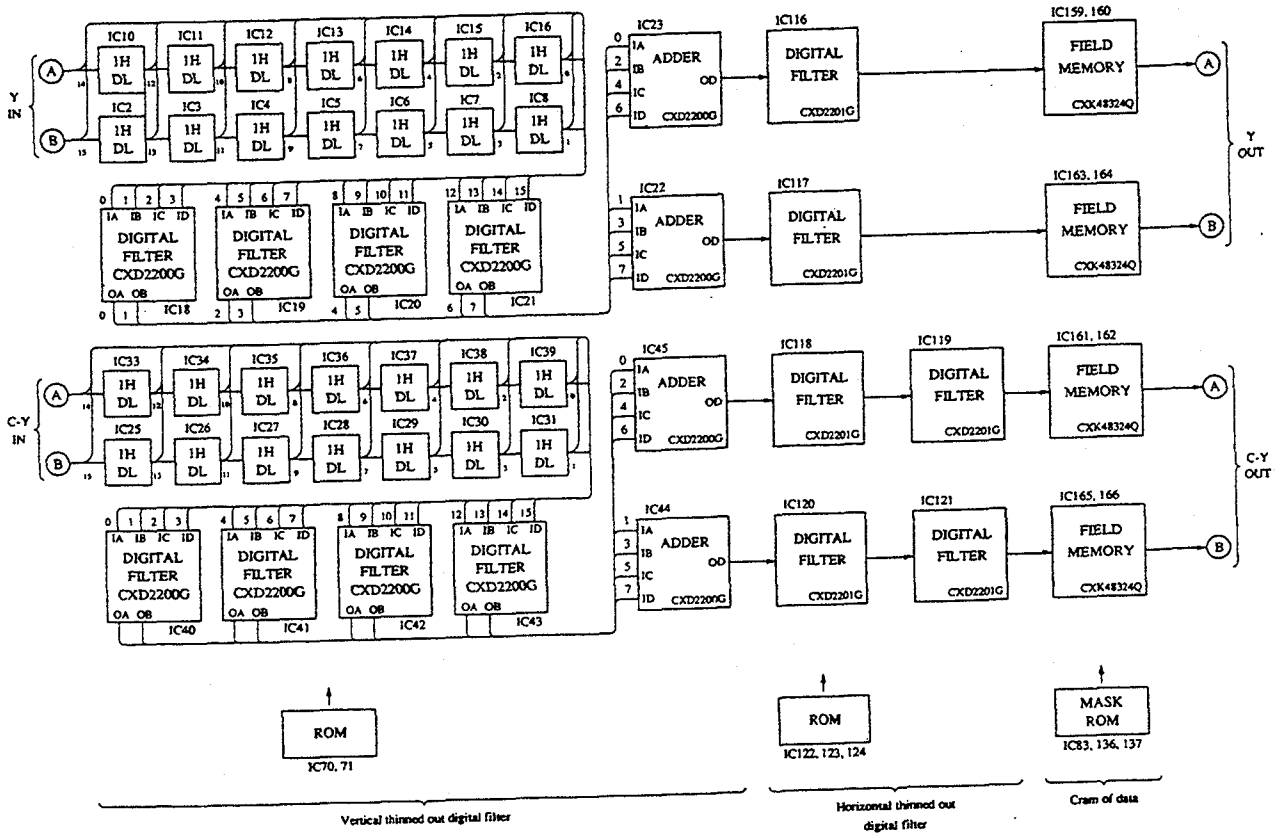
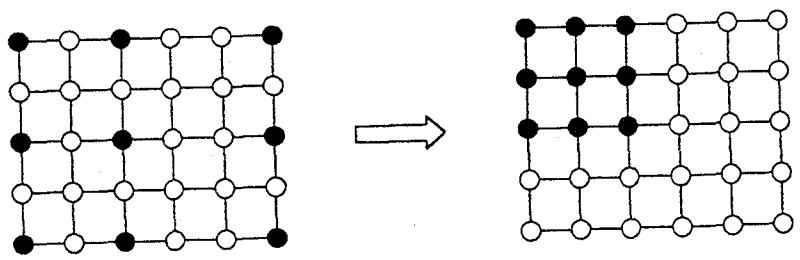


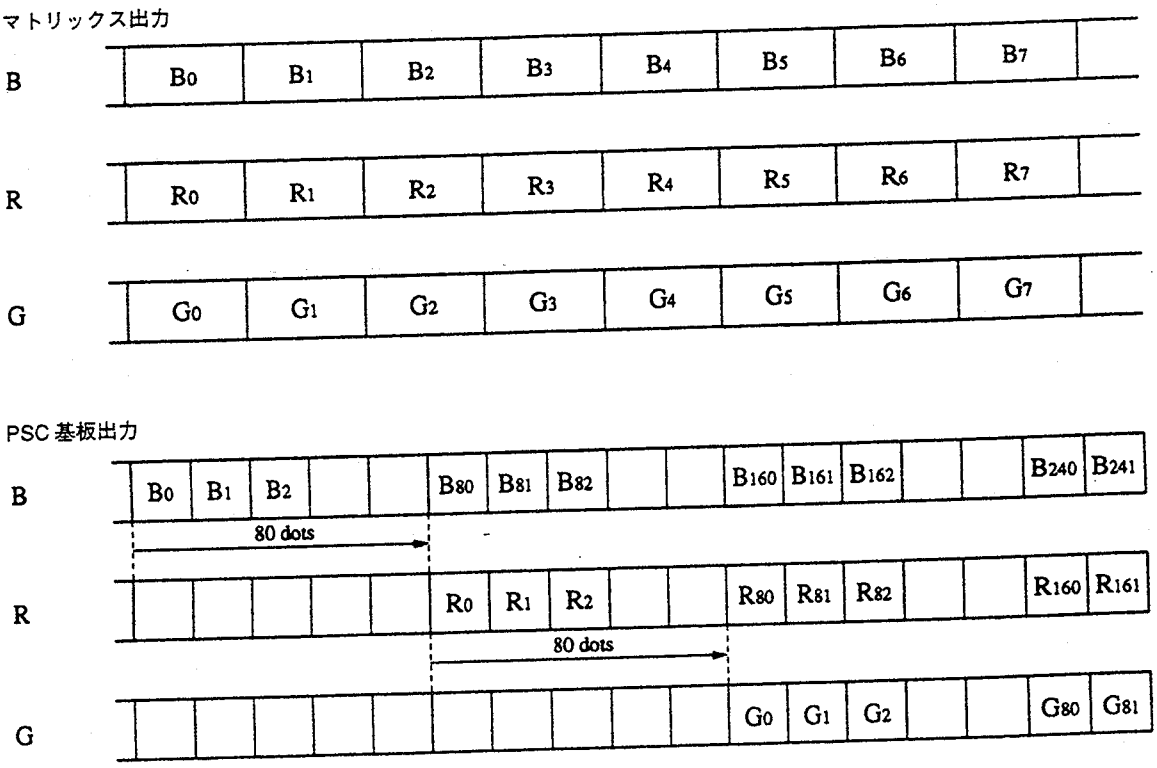
図.6 DSP基板　ブロック図

次のDPS基板では、標準TV信号からジャンボトロンスクリーンサイズに適合したドット数に変換するための信号処理が行われる。
最初に、「ソニー」デジタルフィルター（CXD2200G）を使った垂直方向の補間/デシメーション（十分の一を取る）がある。
しかし、このデジタルフィルターは係数が固定されているので、この係数は可変係数にするために水平ブランキングの時に書き直される。
次に、ソニーデジタルフィルター（CSD2201G）を使った水平方向の補間/デシメーション（十分の一を取る）がある。
CXD2201Gは可変係数なので、全ての係数が立ち上がり時に一度にロードされ、係数は水平計算を行っている間に各ドット毎に変形される。　デジタルフィルターは垂直１５タップで水平が１６タップである。　この時点までに取り込まれた映像データはジャンボトロンサイズに適合するドット数なので、散発的な位置で有効なデータが保存する。データはフレームメモリーに格納されて無効データの書込が行われないので、データは圧縮される。



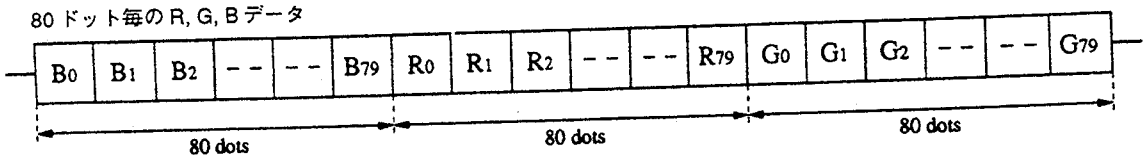
● Valid data
○ Invalid data

図.7



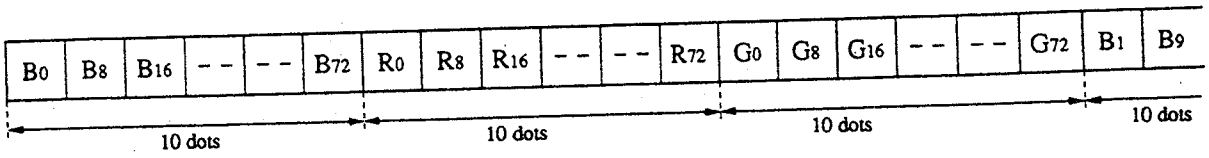
図．8

PSC基板はMIX基板から送られたB、R及びGデータをB=80ドット毎に分離して、R=80ドット及びG=80ドットで構成される合計２４０ドットのデータストリングを発生する。



次に、８アドレス毎の１０データがB、R及びGの順序で格納され、Gデータが終了すると１アドレスのインクレメントの後で同じ動作が繰り返される。

図．9



図．10

このデータはシフトレジスターに入り、８ビットパラレルデータはシリアルデータに変換される。　この時に、８ビットデータを１０ビットデータに変換する8-10変換があり、これによってエラーが検出できる。
B0データのシリアル変換が行われた後で、R0データのシリアル変換が行われる。
シリアル変換の行われたデータアレーは次の通り：

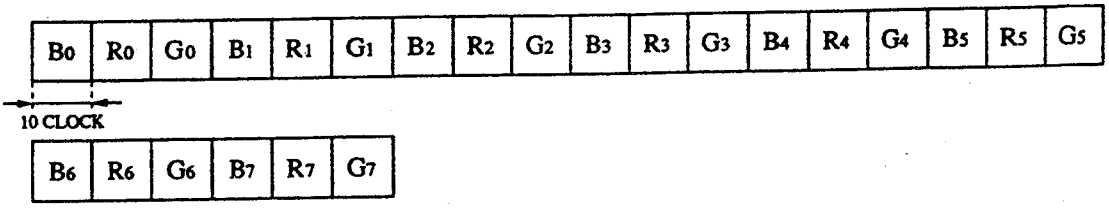


図.11

これがセルカラーアレーを統合する。

Ｂ0のシリアル変換が行われている間に、他に信号B8、B16、B24、B32、B40、B48、B56、B64、B72がそれぞれ１クロック遅れたシリアル変換が行われ、このため１０シフトレジスターでデータの８０ドットの変換が実行できる。（次のページを参照）

SYNC、ADRESS及びEOFといったコード類はシリアル変換の行われたデータアレーに付け加えられ、ジャンボトロンに伝送するために適したフォーマットを有することになる。

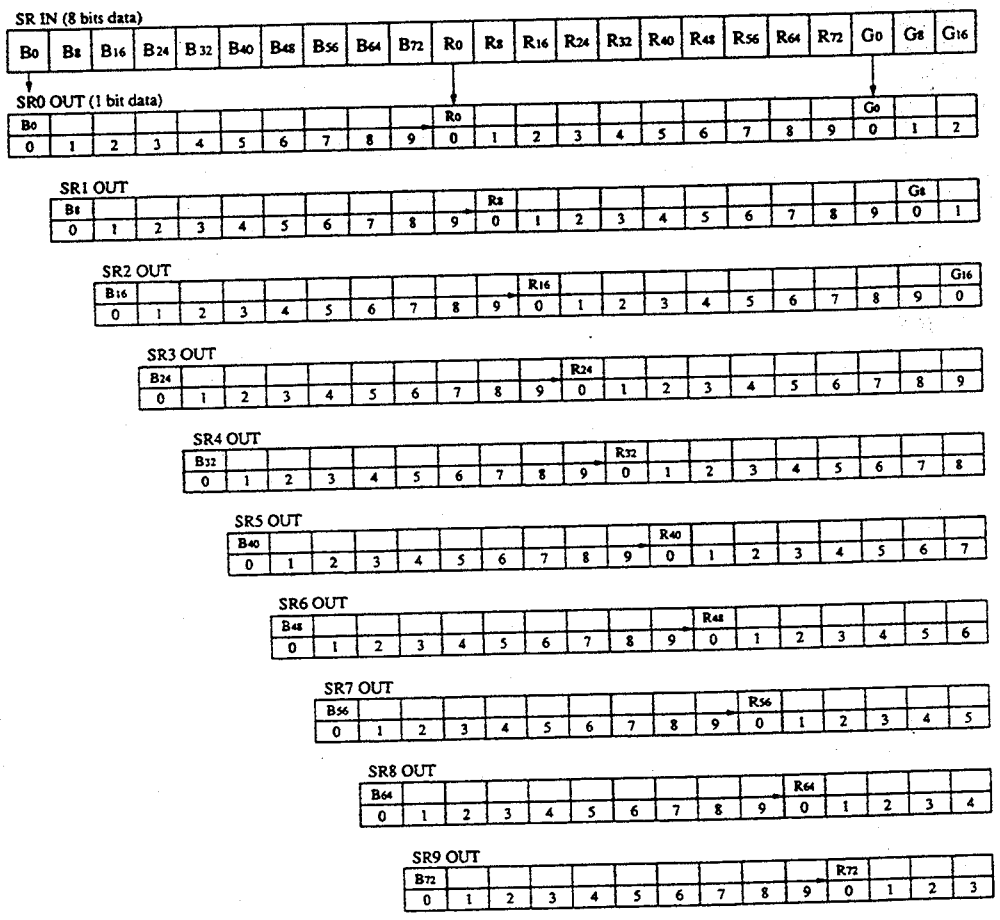


図.12

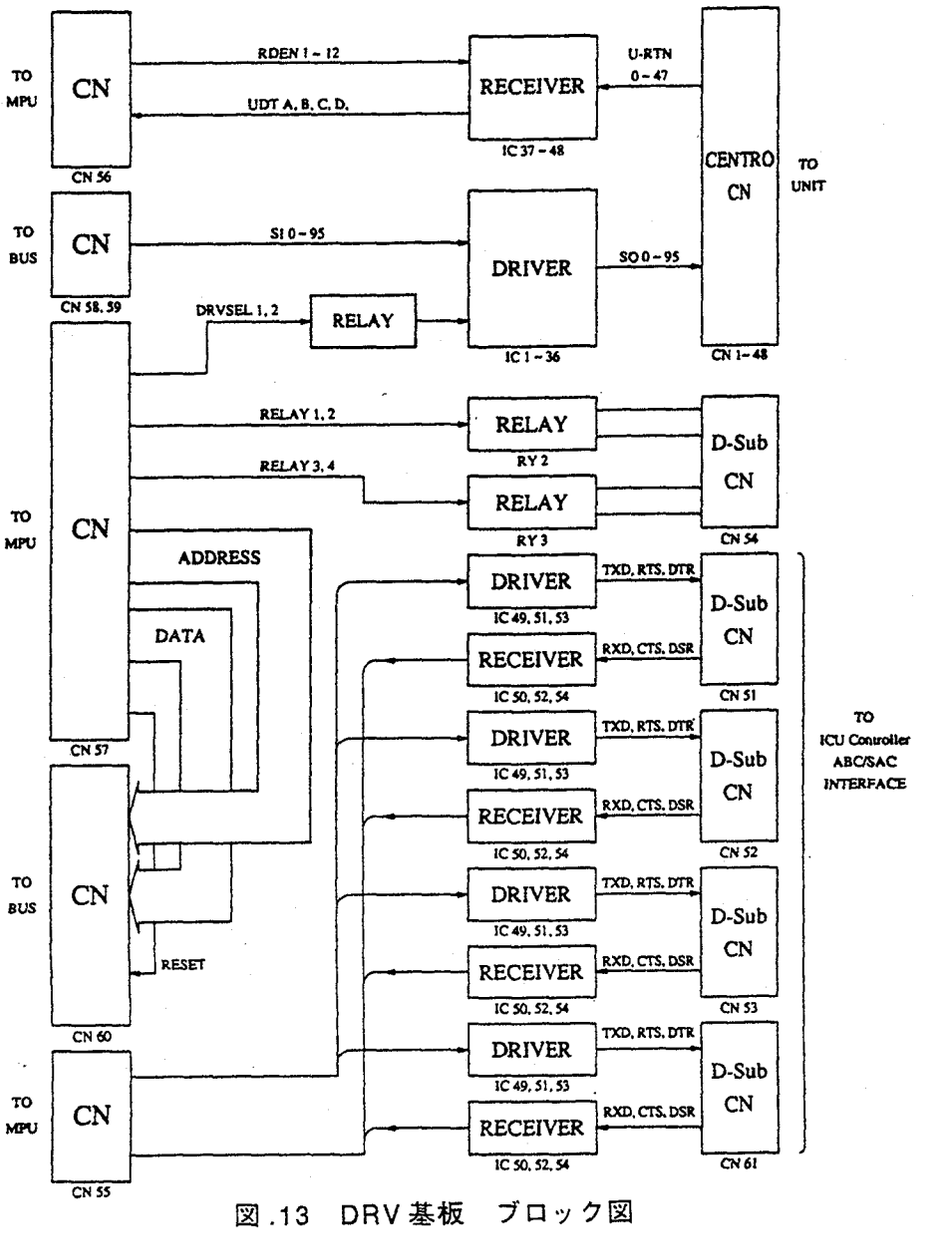


図.13　DRV基板　ブロック図

DRVはPSCからジャンボトロンフォーマットに変換された映像データを受け取る。差動ラインドライバーはこれを個々のスクリーンユニットに送る。一つのドライバーが最大９６ユニットをドライブできるように大電流ドライバーが使用されている。
スクリーンユニットはMPU (DRVSEL 1, 2) から35A3或いは17A5を受け取り、ドライバーを変えるためにリレーが使われていて、４８セントロニクス (Amphenol) コネクタにデータを配分する。スクリーンからのリターン信号をライン受信機で受け取ってMPUに送る機能もある。

Dサブコネクタを通して周辺機器と通信できるよにするためのラインドライバーと受信機もある。 Dサブコネクター つはリレー接点が接続状態になっている。これはスクリーン電源とユーティリティのONとOFFができるようにスイッチボードに接続されている。さらに、これはMPからアドレスバス、データバス及びレスト信号をBUSに送るときにリレーの役目を果たします。

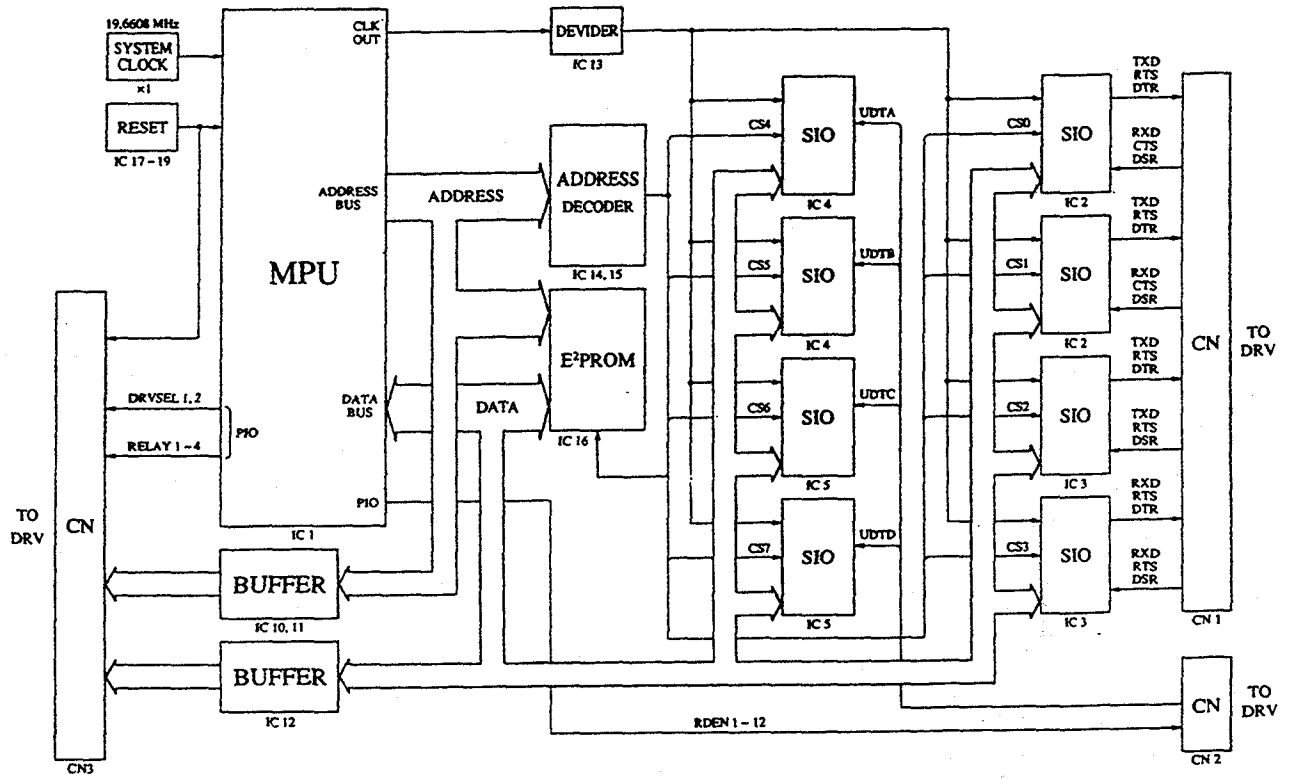


図.14　MPU 基板　ブロック図

電源が入ると、MPUは、スクリーン位置、縮み率、色合い、カラー、シャープネス及び輝度を含む初期値をロードするために、アドレスバスとデータバスをつかってDRVとBUSで基板にリセット信号を送る。様々なデータは電源を切ったときと同じデータで、E²PROMに格納されている。これに続き、ICUコントローラーとABX/SACインターフェースからの通信データがスタンバイ状態になる。
データを送ってしまうと、そのコマンドが各種の基板に送られる。また、データを待っている間に、周辺機器の接続状態のチェックとスクリーン状態（ユニット、セル停止）のチェックが行われます。

スクリーンと通信するために、データがPSCコントロールコード用RAMに書き込まれる。スクリーンからリプレーを待ち、状態をチェックする。このデータはICUコントローラー或いはコントローラーのどちらかに接続されているパーソナルコンピューターに送られるので、ユーザがデータをチェックすることができます。

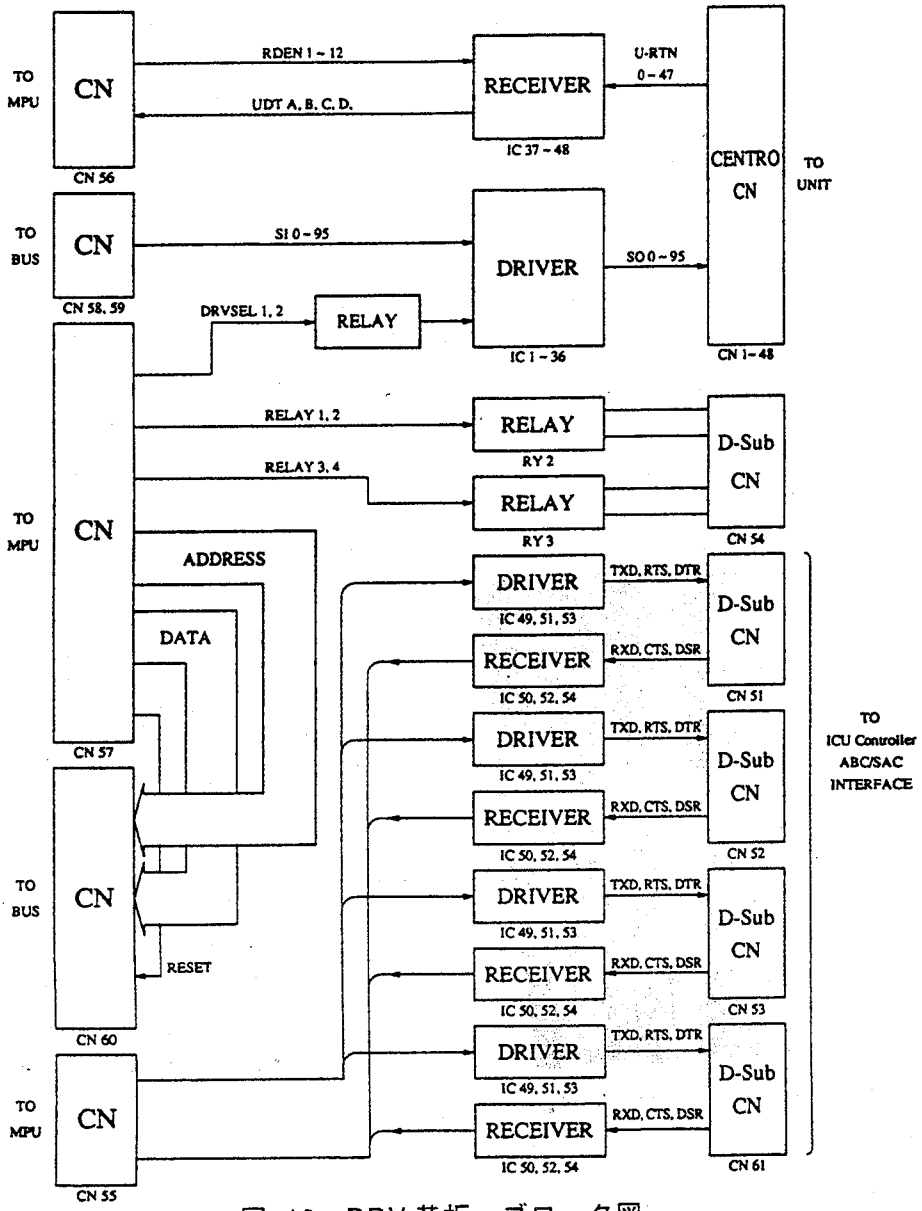


図.13　DRV基板　ブロック図

DRVはPSCからジャンボトロンフォーマットに変換された映像データを受け取る。差動ラインドライバーはこれを個々のスクリーンユニットに送る。一つのドライバーが最大９６ユニットをドライブできるように大電流ドライバーが使用されている。
スクリーンユニットはMPU (DRVSEL 1, 2) から35A3或いは17A5を受け取り、ドライバーを変えるためにリレーが使われていて、４８セントロニクス (Amphenol) コネクタにデータを配分する。スクリーンからのリターン信号をライン受信機で受け取ってMPUに送る機能もある。

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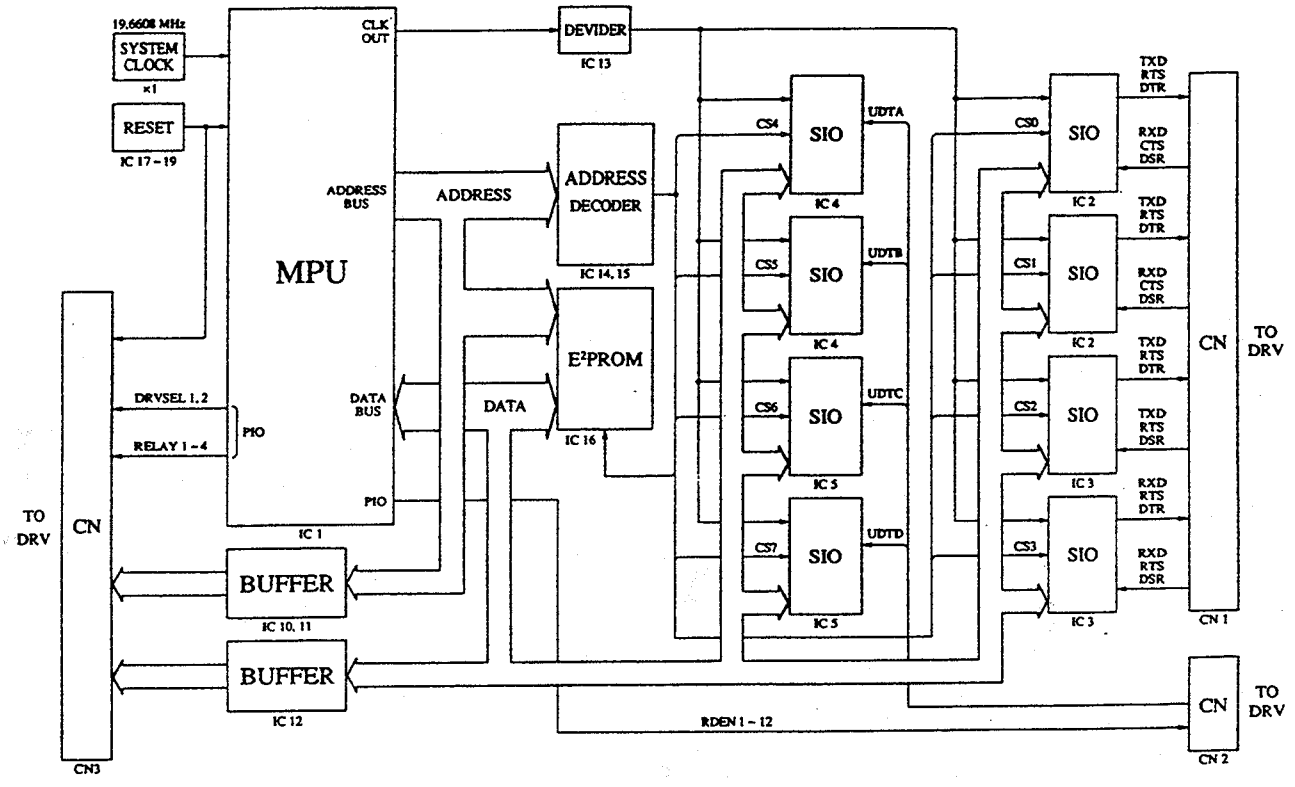


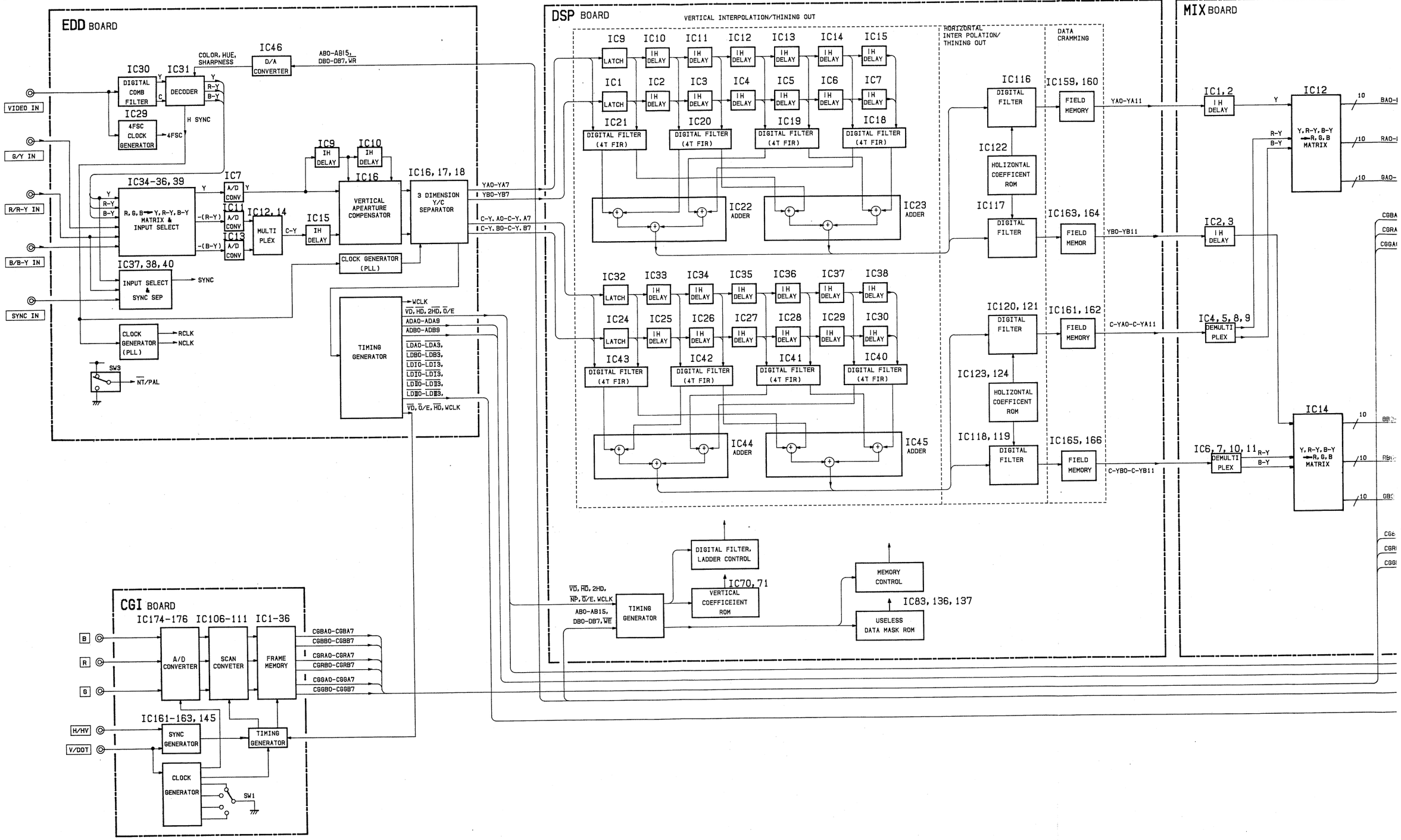
図.14　MPU 基板　ブロック図

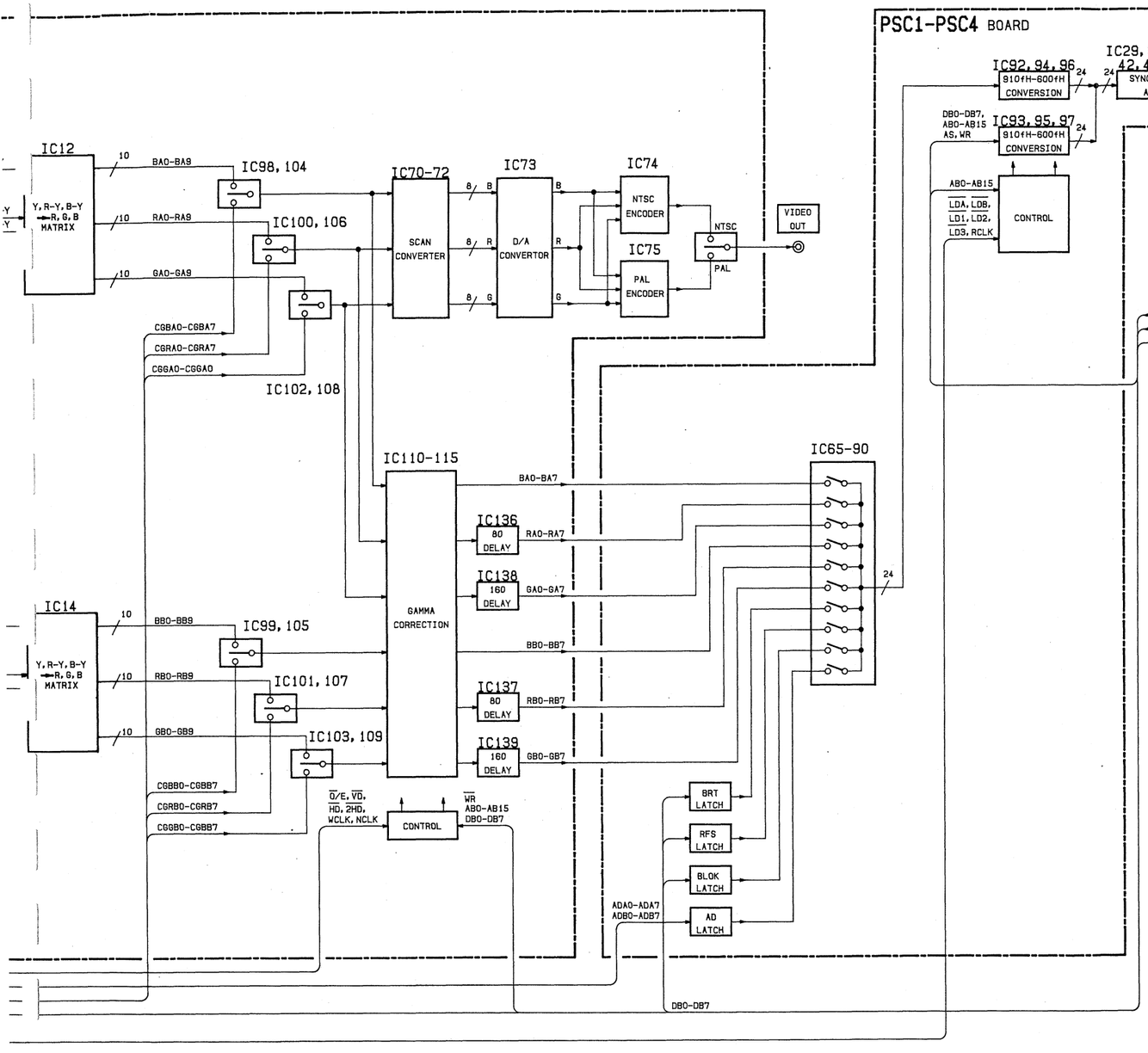
電源が入ると、MPUは、スクリーン位置、縮み率、色合い、カラー、シャープネス及び輝度を含む初期値をロードするために、アドレスバスとデータバスをつかってDRVとBUSで基板にリセット信号を送る。様々なデータは電源を切ったときと同じデータで、E²PROMに格納されている。これに続き、ICUコントローラーとABX/SACインターフェースからの通信データがスタンバイ状態になる。
データを送ってしまうと、そのコマンドが各種の基板に送られる。また、データを待っている間に、周辺機器の接続状態のチェックとスクリーン状態（ユニット、セル停止）のチェックが行われます。

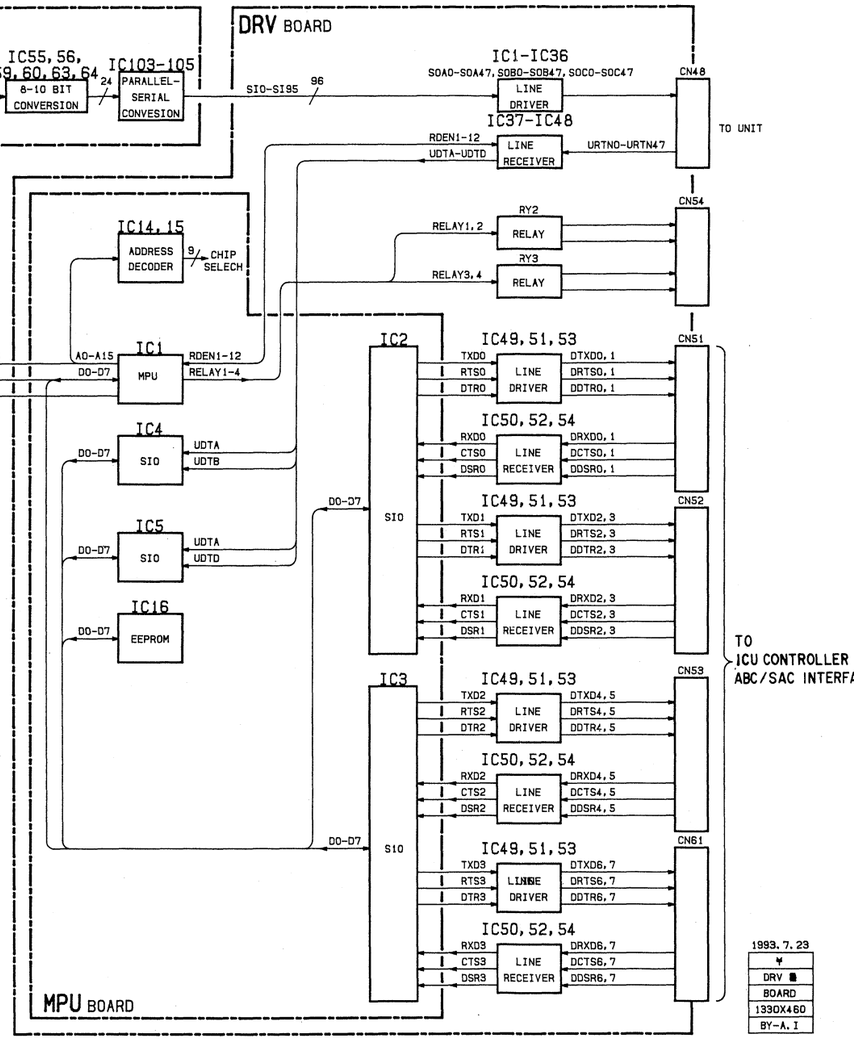
スクリーンと通信するために、データがPSCコントロールコード用RAMに書き込まれる。スクリーンからリプレーを待ち、状態をチェックする。このデータはICUコントローラー或いはコントローラーのどちらかに接続されているパーソナルコンピューターに送られるので、ユーザがデータをチェックすることができます。

SECTION 5. DIAGRAMS
5. ダイヤグラム

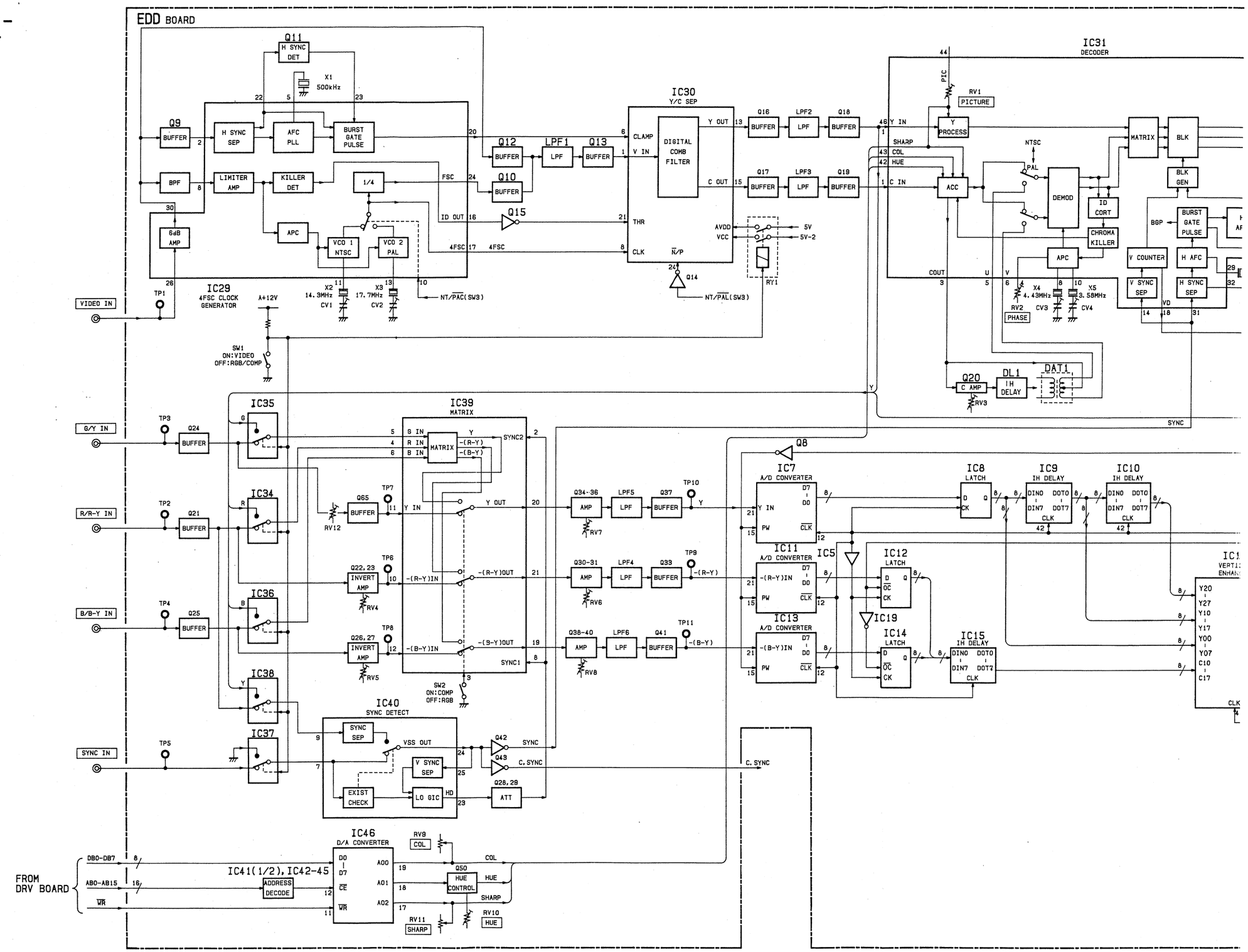
5-1. BLOCK DIAGRAM – OVERALL –
5-1. ブロックダイヤグラム―総合―

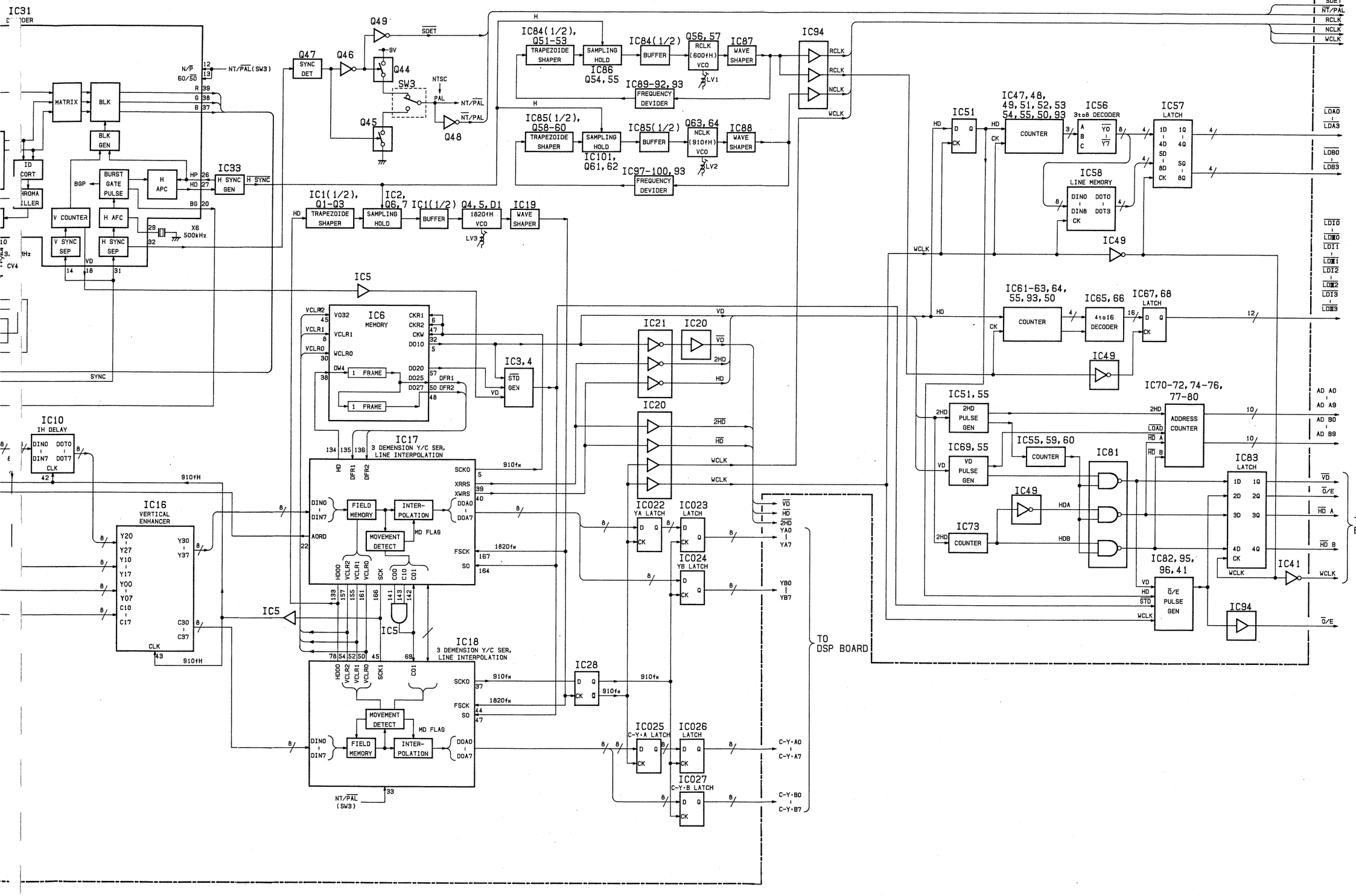



IC12
Y, R-Y, B-Y →R, G, B MATRIX
BA0-BA9
RA0-RA9
GA0-GA9
IC98, 104
IC100, 106
IC102, 108
IC70-72
SCAN CONVERTER
IC73
D/A CONVERTOR
IC74
NTSC ENCODER
IC75
PAL ENCODER
NTSC
PAL
VIDEO OUT
CGBA0-CGBA7
CGRA0-CGRA7
CGGA0-CGGA0
IC14
Y, R-Y, B-Y →R, G, B MATRIX
BB0-BB9
RB0-RB9
GB0-GB9
IC99, 105
IC101, 107
IC103, 109
IC110-115
GAMMA CORRECTION
IC136
80 DELAY
IC137
80 DELAY
IC138
160 DELAY
IC139
160 DELAY
BA0-BA7
RA0-RA7
GA0-GA7
BB0-BB7
RB0-RB7
GB0-GB7
IC65-90
24
CGBB0-CGBB7
CGRB0-CGRB7
CGGB0-CGBB7
O/E, VD, HD, 2HD, WCLK, NCLK
CONTROL
WR AB0-AB15 DB0-DB7
BRT LATCH
RFS LATCH
BLOK LATCH
AD LATCH
ADA0-ADA7
ADB0-ADB7
DB0-DB7

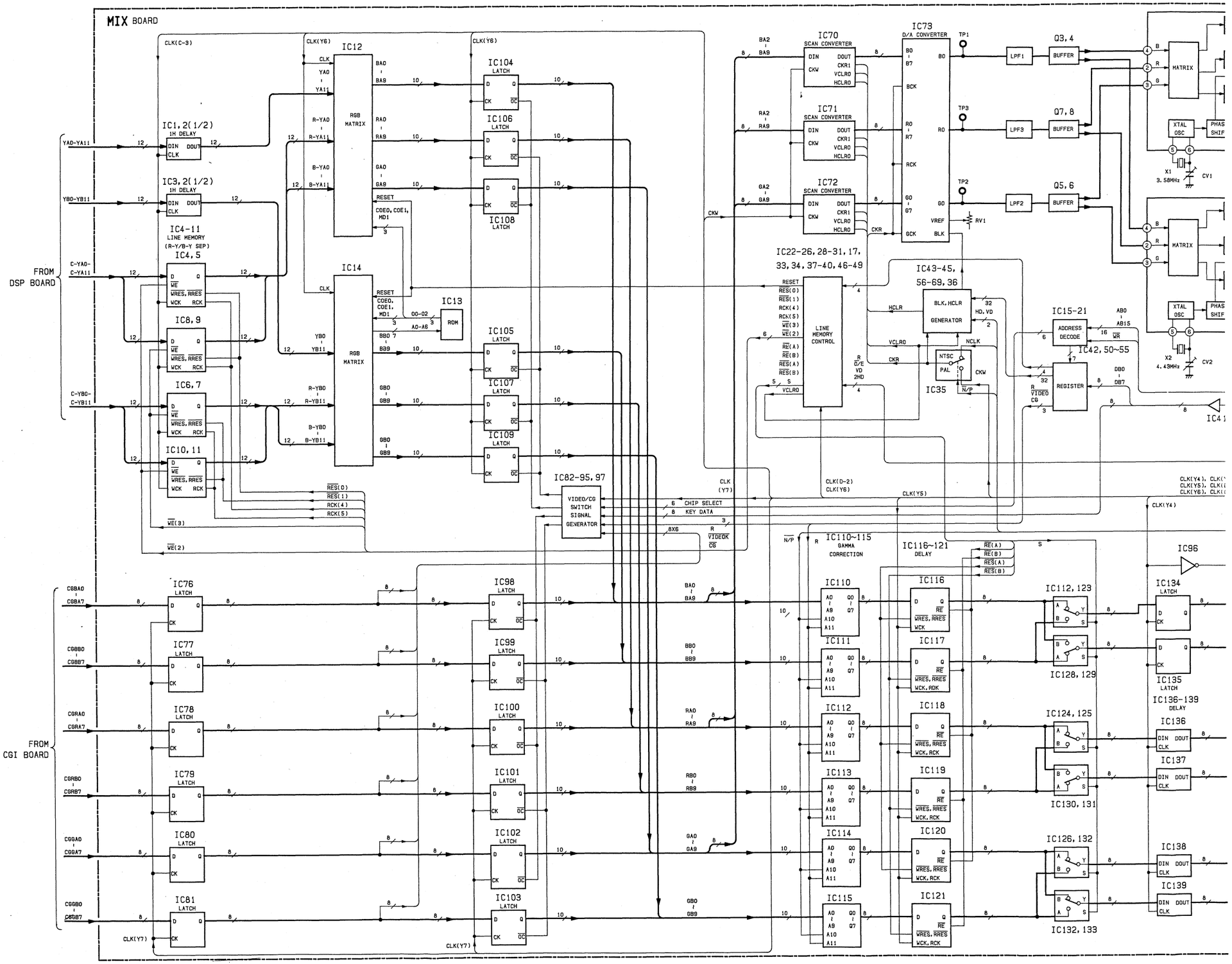

PSC1-PSC4 BOARD
IC92, 94, 96
910fH-600fH CONVERSION
IC93, 95, 97
910fH-600fH CONVERSION
IC29, 33, 40, 42, 49, 51
SYNC, EOF ADD
IC55, 56, 59, 60, 63, 64
8-10 BIT CONVERSION
IC103-105
PARALLEL-SERIAL CONVESION
SIO-SI95
96
DB0-DB7, AB0-AB15 AS, WR
AB0-AB15
LDA, LDB, LD1, LD2, LD3, RCLK
CONTROL
DRV BOARD
IC1-IC36
SOA0-SOA47, SOB0-SOB47, SOC0-SOC47
LINE DRIVER
CN48
TO UNIT
IC37-IC48
LINE RECEIVER
RDEN1-12
UDTA-UDTD
URTN0-URTN47
IC14, 15
ADDRESS DECODER
9
CHIP SELECH
RY2
RELAY
RELAY1, 2
RY3
RELAY
RELAY3, 4
CN54
AB0-AB15
DB0-DB7
WR, AS
A0-A15
D0-D7
IC1
MPU
RDEN1-12
RELAY1-4
IC4
SIO
UDTA
UDTB
IC5
SIO
UDTA
UDTD
IC16
EEPROM
IC2
SIO
IC49, 51, 53
LINE DRIVER
TXD0
RTS0
DTR0
DTXD0, 1
DRTS0, 1
DDTR0, 1
CN51
IC50, 52, 54
LINE RECEIVER
RXD0
CTS0
DSR0
DRXD0, 1
DCTS0, 1
DDSR0, 1
TXD1
RTS1
DTR1
DTXD2, 3
DRTS2, 3
DDTR2, 3
CN52
RXD1
CTS1
DSR1
DRXD2, 3
DCTS2, 3
DDSR2, 3
IC3
SIO
TXD2
RTS2
DTR2
DTXD4, 5
DRTS4, 5
DDTR4, 5
CN53
RXD2
CTS2
DSR2
DRXD4, 5
DCTS4, 5
DDSR4, 5
TXD3
RTS3
DTR3
DTXD6, 7
DRTS6, 7
DDTR6, 7
CN61
RXD3
CTS3
DSR3
DRXD6, 7
DCTS6, 7
DDSR6, 7
S10
TO ICU CONTROLLER ABC/SAC INTERFACE
MPU BOARD
1993. 7. 23
DRV BOARD
133DX460
BY-A. I

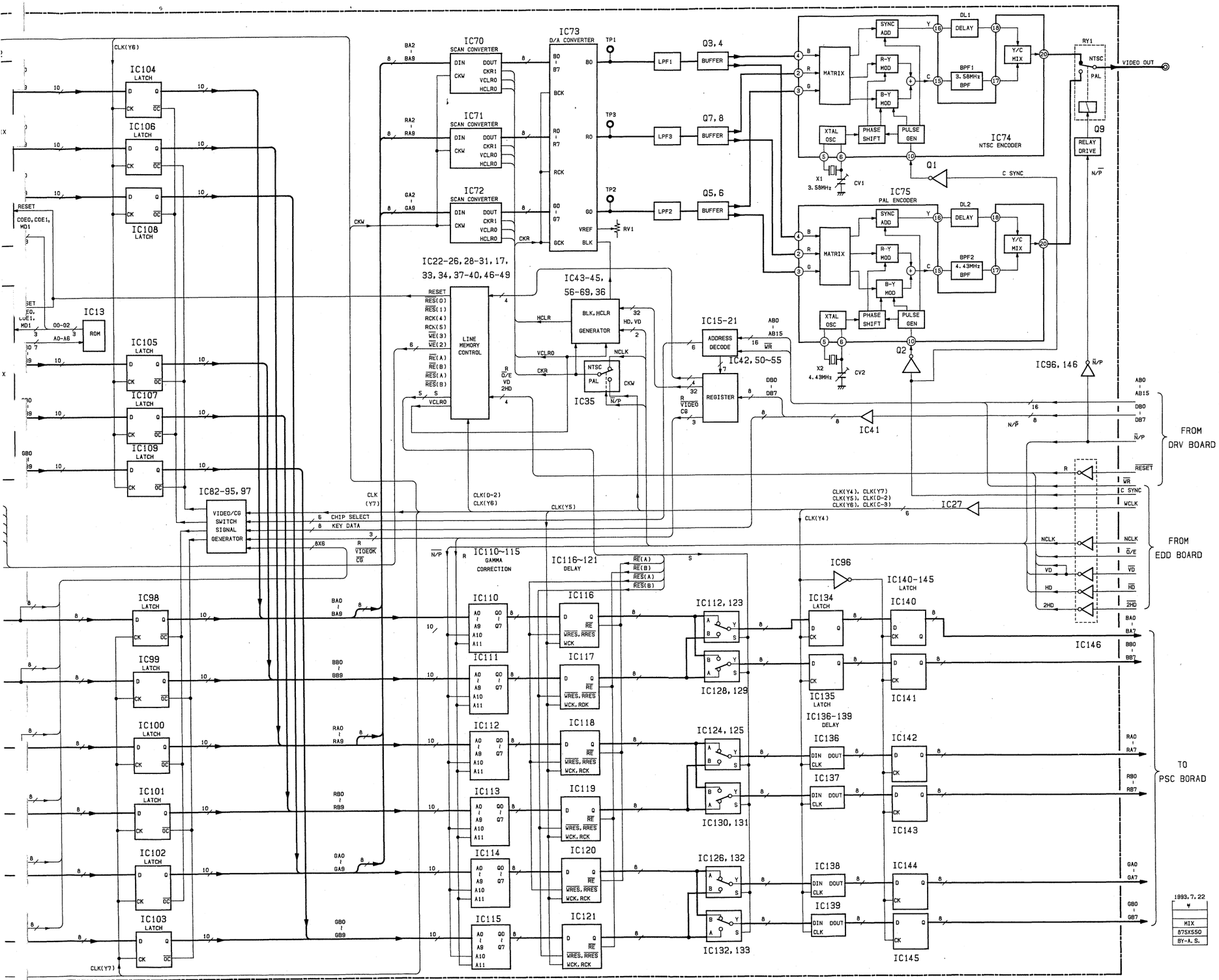
5-2. BLOCK DIAGRAM – EDD BOARD –
5-2. ブロックダイヤグラムー EDD 基板ー



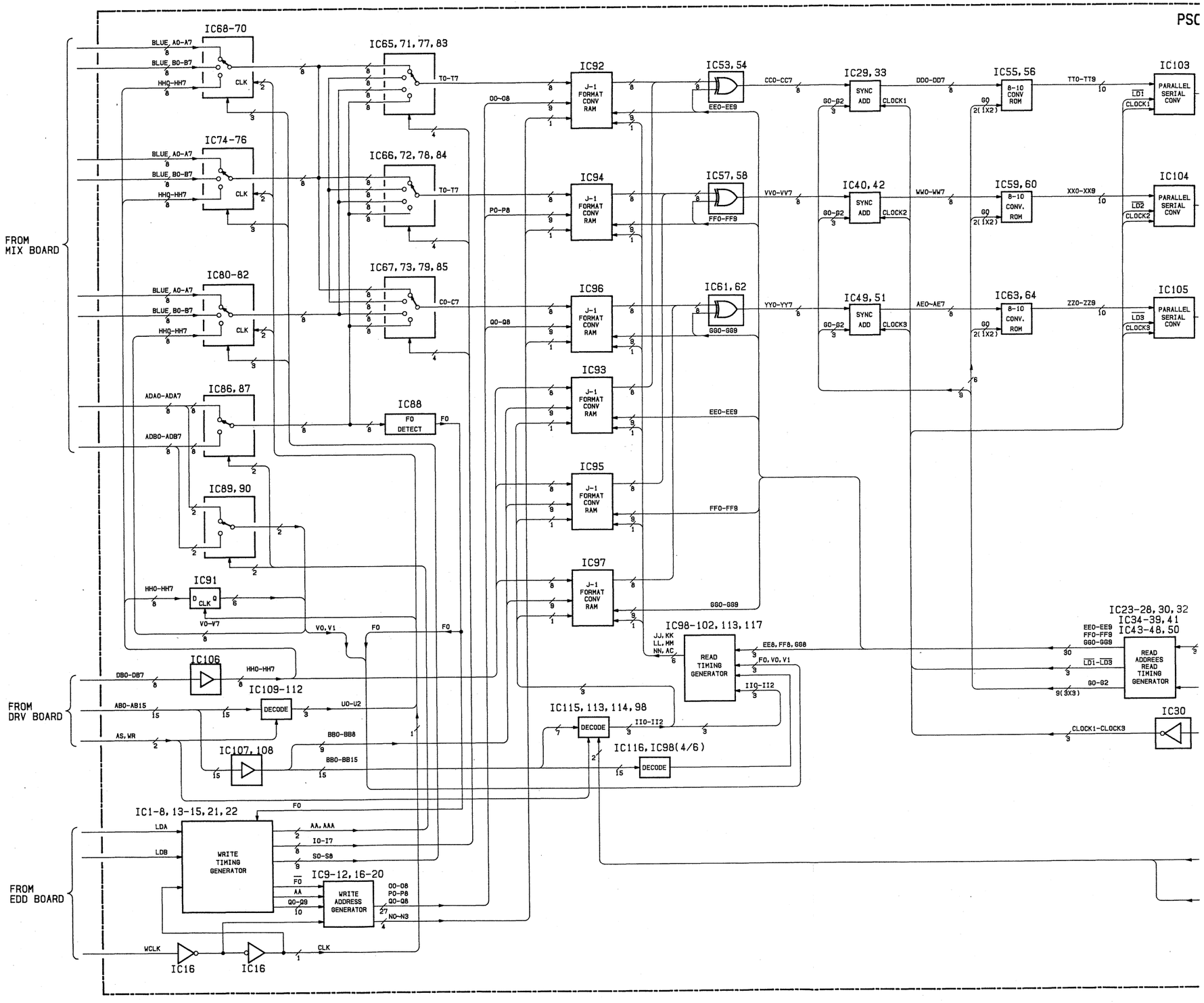

IC31
N/P
60/50
NT/PAL(SW3)
MATRIX
BLK
BLK GEN
ID CORT
CHROMA KILLER
BURST GATE PULSE
H APC
H SYNC GEN
V COUNTER
H AFC
V SYNC SEP
H SYNC SEP
X6 500kHz
SYNC
Q49
SDET
Q47 SYNC DET
Q46
Q44
SW3
NTSC
PAL
NT/PAL
Q45
Q48
IC84(1/2), Q51-53 TRAPEZOIDE SHAPER
SAMPLING HOLD
IC84(1/2) BUFFER
Q56,57 RCLK (600fH) VCO
IC87 WAVE SHAPER
IC86 Q54,55
IC89-92,93 FREQUENCY DEVIDER
IC85(1/2), Q58-60 TRAPEZOIDE SHAPER
IC85(1/2) BUFFER
Q63,64 NCLK (910fH) VCO
IC88 WAVE SHAPER
IC101, Q61,62
IC97-100,93 FREQUENCY DEVIDER
IC94
RCLK
NCLK
WCLK
IC1(1/2), Q1-Q3 TRAPEZOIDE SHAPER
IC2, Q6,7 IC1(1/2) BUFFER
Q4,5,D1 1820fH VCO
IC19 WAVE SHAPER
LV3
IC5
IC6 MEMORY
VCLR2
VCLR1
VCLR0
WCLR0
DW4
1 FRAME
IC3,4 STD GEN
IC21
IC20
VD
2HD
HD
IC10 IH DELAY
DINO DIN7 DOTO DOT7 CLK
910fH
IC16 VERTICAL ENHANCER
Y20 Y27 Y10 Y17 Y00 Y07 C10 C17
Y30 Y37 C30 C37
IC17 3 DEMENSION Y/C SER, LINE INTERPOLATION
SCKO
XRRS
XWRS
DINO DIN7
FIELD MEMORY
INTER-POLATION
DOAO DOA7
AORD
MOVEMENT DETECT
MD FLAG
FSCK
SO
1820fH
IC18 3 DEMENSION Y/C SER, LINE INTERPOLATION
IC28
IC022 YA LATCH
IC023 LATCH
IC024 YB LATCH
YA0 YA7
YB0 YB7
IC025 C-Y-A LATCH
IC026 LATCH
IC027 C-Y-B LATCH
C-Y-A0 C-Y-A7
C-Y-B0 C-Y-B7
NT/PAL (SW3)
TO DSP BOARD
IC51
IC47,48, 49,51,52,53 54,55,50,93 COUNTER
IC56 3to8 DECODER
IC57 LATCH
IC58 LINE MEMORY
DINO DIN8 DOTO DOT3
IC49
LDA0 LDA3
LDB0 LDB3
LDI0 LDI3
LDO0 LDO3
IC61-63,64, 55,93,50 COUNTER
IC65,66 4to16 DECODER
IC67,68 LATCH
IC51,55 2HD PULSE GEN
IC70-72,74-76, 77-80 ADDRESS COUNTER
AD A0 AD A9
AD B0 AD B9
IC69,55 VD PULSE GEN
IC55,59,60 COUNTER
IC81
IC73 COUNTER
HDA
HDB
IC83 LATCH
IC82,95, 96,41 Ō/E PULSE GEN
IC41
TO CGI BOARD

5-3. BLOCK DIAGRAM – MIX BOARD –
5-3. ブロックダイヤグラム– MIX 基板–




IC104
LATCH
IC106
LATCH
IC108
LATCH
IC105
LATCH
IC107
LATCH
IC109
LATCH
IC13
ROM
IC82-95, 97
VIDEO/CG SWITCH SIGNAL GENERATOR
CHIP SELECT
KEY DATA
IC98
LATCH
IC99
LATCH
IC100
LATCH
IC101
LATCH
IC102
LATCH
IC103
LATCH
IC70
SCAN CONVERTER
IC71
SCAN CONVERTER
IC72
SCAN CONVERTER
IC73
D/A CONVERTER
IC22-26, 28-31, 17, 33, 34, 37-40, 46-49
LINE MEMORY CONTROL
IC43-45, 56-69, 36
BLK, HCLR GENERATOR
IC35
IC15-21
ADDRESS DECODE
IC42, 50~55
REGISTER
IC110~115
GAMMA CORRECTION
IC116~121
DELAY
IC110
IC111
IC112
IC113
IC114
IC115
IC116
IC117
IC118
IC119
IC120
IC121
IC112, 123
IC128, 129
IC124, 125
IC130, 131
IC126, 132
IC132, 133
IC134
LATCH
IC135
LATCH
IC136-139
DELAY
IC136
IC137
IC138
IC139
IC140-145
LATCH
IC140
IC141
IC142
IC143
IC144
IC145
IC96
IC146
IC41
IC27
IC96, 146
Q3, 4
Q7, 8
Q5, 6
BUFFER
LPF1
LPF3
LPF2
MATRIX
SYNC ADD
R-Y MOD
B-Y MOD
XTAL OSC
PHASE SHIFT
PULSE GEN
DELAY
BPF1 3.58MHz BPF
BPF2 4.43MHz BPF
Y/C MIX
IC74
NTSC ENCODER
IC75
PAL ENCODER
X1 3.58MHz
X2 4.43MHz
CV1
CV2
Q1
Q2
C SYNC
RY1
NTSC
PAL
Q9
RELAY DRIVE
VIDEO OUT
FROM DRV BOARD
FROM EDD BOARD
TO PSC BORAD
1993.7.22
MIX
875X550
BY-A.S.

5-4. BLOCK DIAGRAM – PSC BOARD –
5-4. ブロックダイヤグラム– PSC 基板–

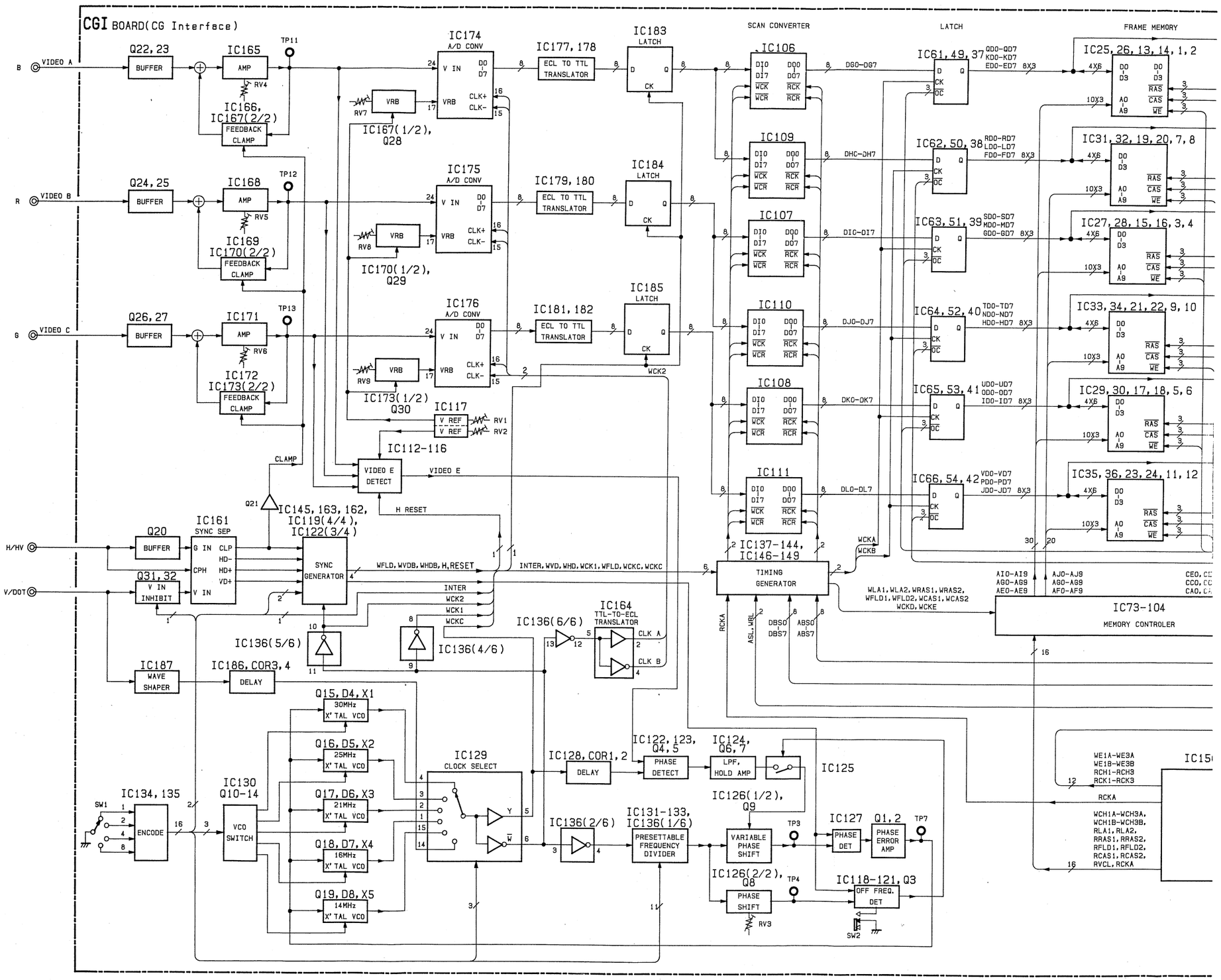


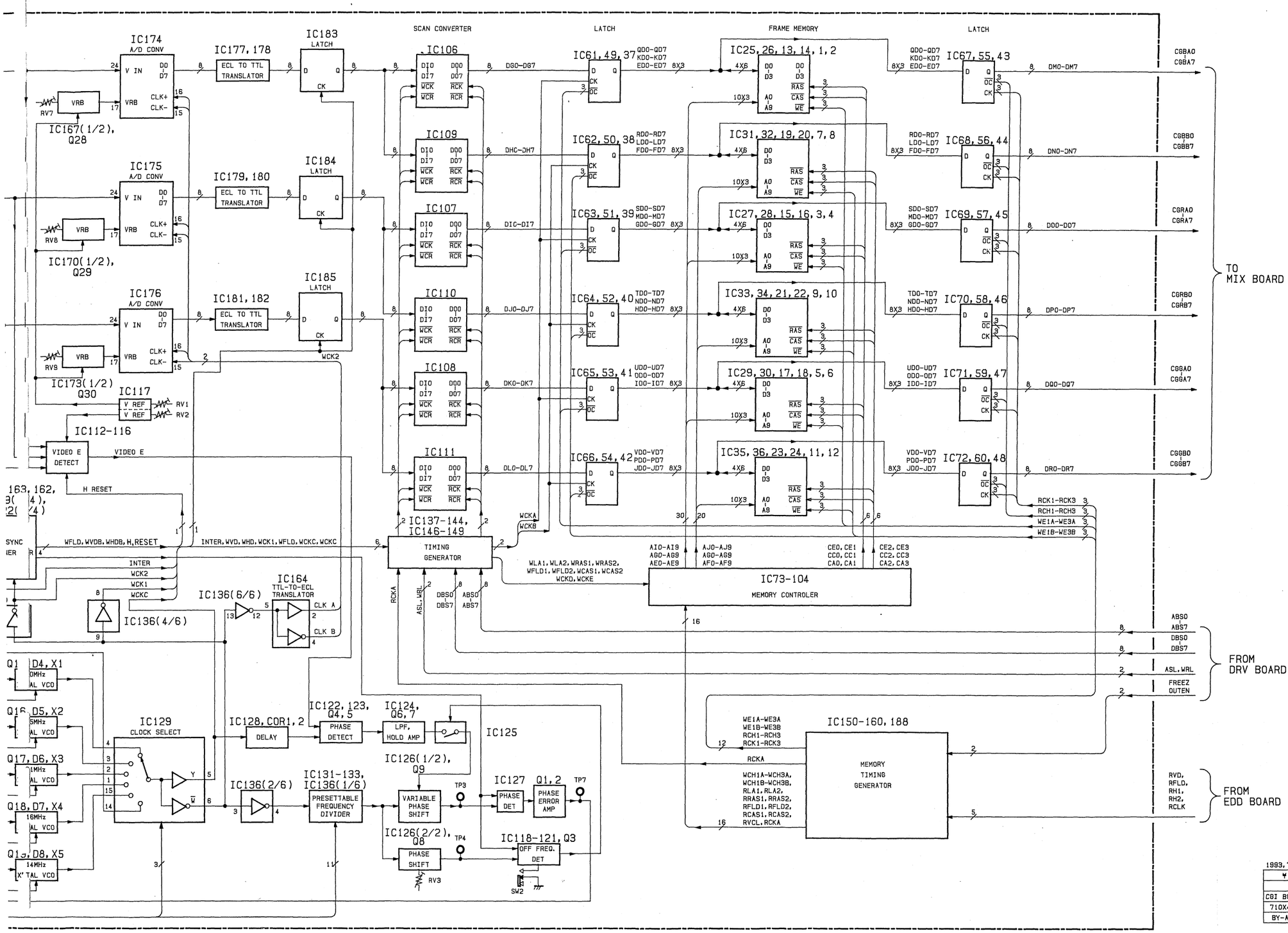
PSC BOARD

IC65, 71, 77, 83
IC66, 72, 78, 84
IC67, 73, 79, 85
IC88
FO DETECT
IC92
IC94
IC96
IC93
IC95
IC97
J-1 FORMAT CONV RAM
IC53, 54
IC57, 58
IC61, 62
EEO-EE9
FFO-FF9
GGO-GG9
IC29, 33
IC40, 42
IC49, 51
SYNC ADD
CLOCK1
CLOCK2
CLOCK3
IC55, 56
IC59, 60
IC63, 64
8-10 CONV ROM
IC103
IC104
IC105
PARALLEL SERIAL CONV
SDO-S09
S10-S19
S20-S29
TO DRV BOARD
IC98-102, 113, 117
READ TIMING GENERATOR
IC115, 113, 114, 98
DECODE
IC116, IC98(4/6)
IC23-28, 30, 32
IC34-39, 41
IC43-48, 50
READ ADDREES READ TIMING GENERATOR
IC30
FROM EDD BOARD
MAD0
MAD1

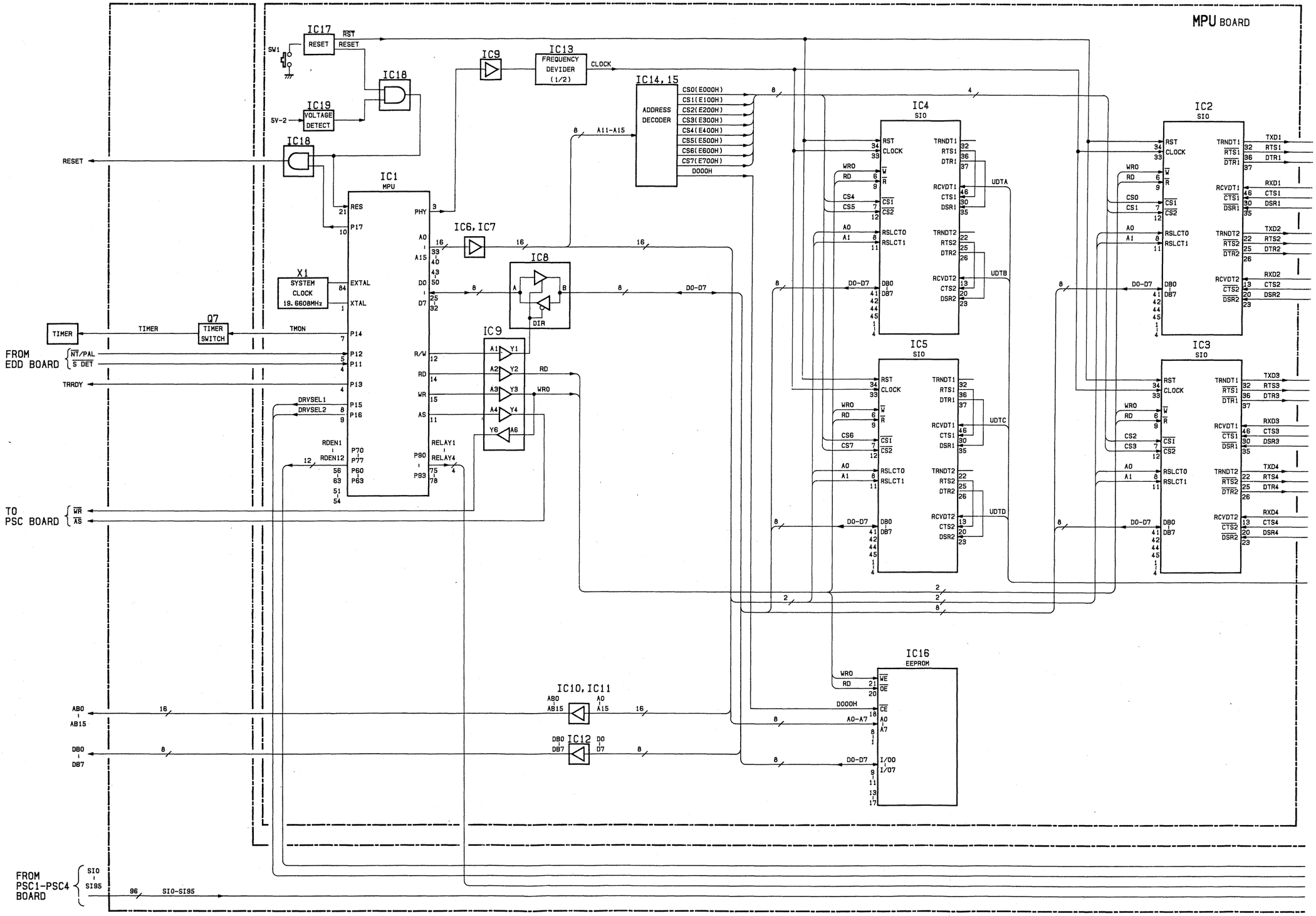
1993.7.22	
PSC	
6SOX490	
BY-A.I.	

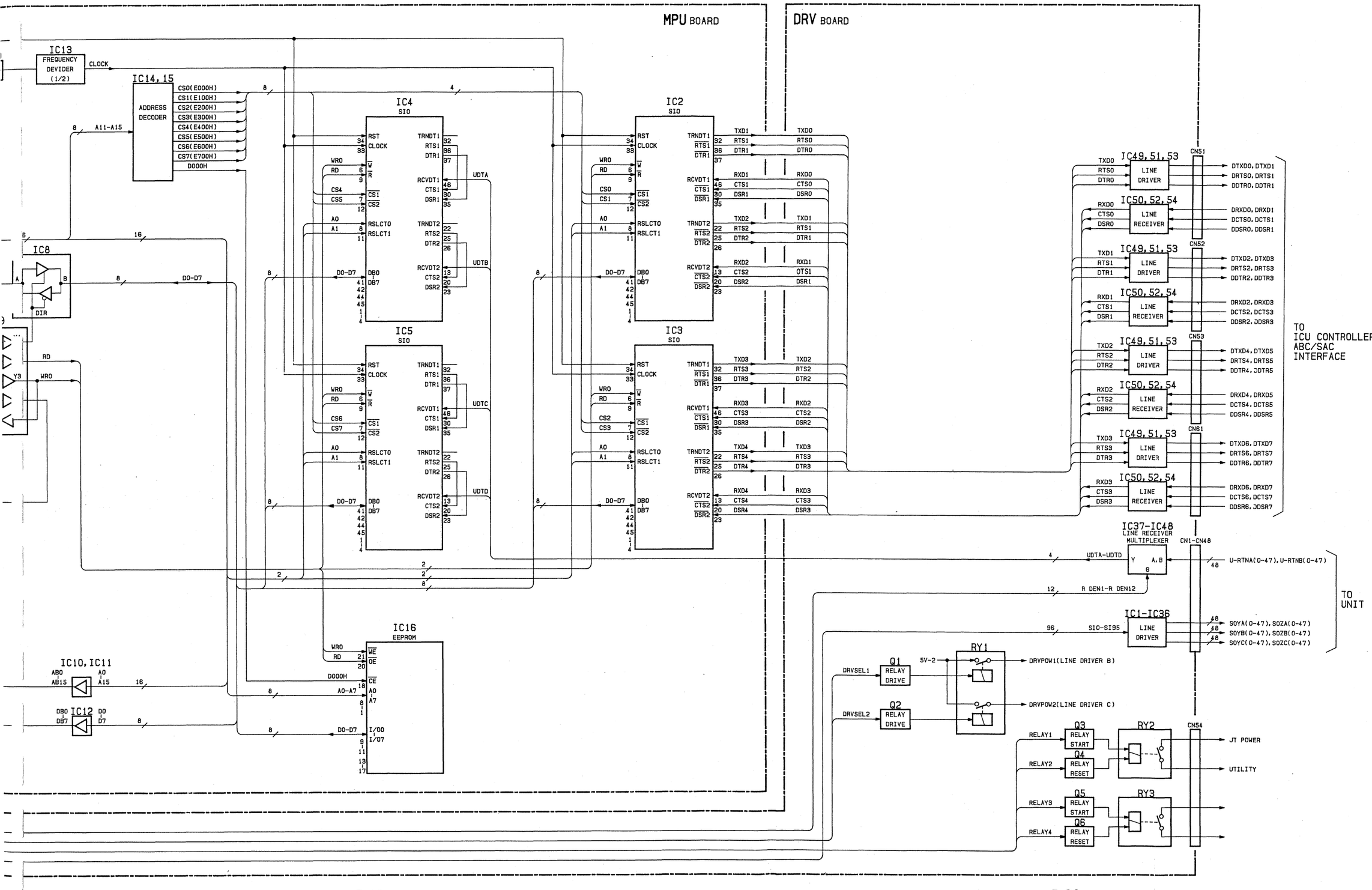
5-5. BLOCK DIAGRAM – CGI BOARD –
5-5. ブロックダイヤグラム– CGI 基板–



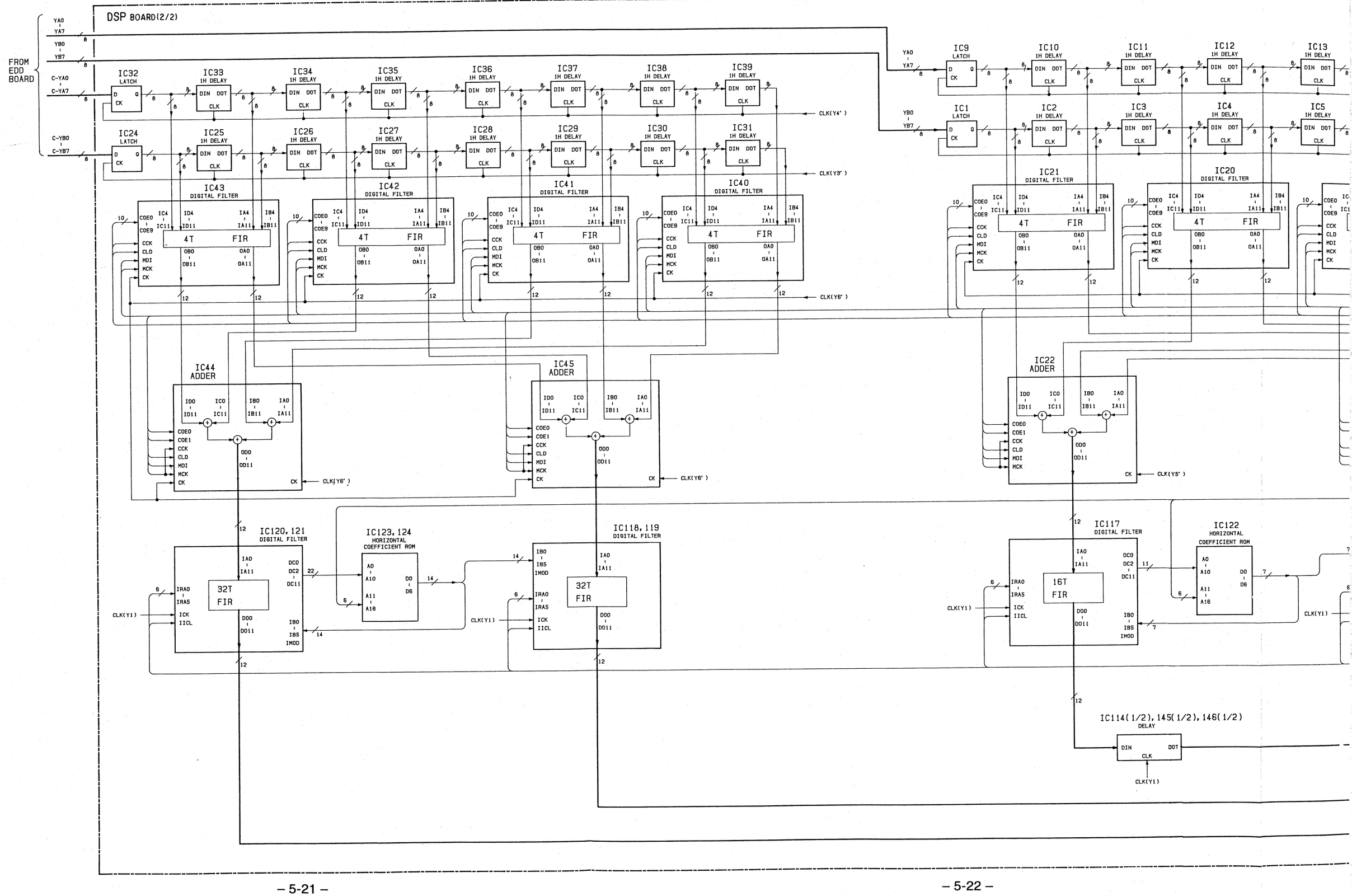

SCAN CONVERTER
LATCH
FRAME MEMORY
LATCH
IC174
A/D CONV
IC175
A/D CONV
IC176
A/D CONV
IC177, 178
ECL TO TTL TRANSLATOR
IC179, 180
ECL TO TTL TRANSLATOR
IC181, 182
ECL TO TTL TRANSLATOR
IC183
LATCH
IC184
LATCH
IC185
LATCH
IC167(1/2), Q28
IC170(1/2), Q29
IC173(1/2) Q30
IC117
V REF
IC112-116
VIDEO E DETECT
VIDEO E
H RESET
IC106
IC109
IC107
IC110
IC108
IC111
IC61, 49, 37
IC62, 50, 38
IC63, 51, 39
IC64, 52, 40
IC65, 53, 41
IC66, 54, 42
IC25, 26, 13, 14, 1, 2
IC31, 32, 19, 20, 7, 8
IC27, 28, 15, 16, 3, 4
IC33, 34, 21, 22, 9, 10
IC29, 30, 17, 18, 5, 6
IC35, 36, 23, 24, 11, 12
IC67, 55, 43
IC68, 56, 44
IC69, 57, 45
IC70, 58, 46
IC71, 59, 47
IC72, 60, 48
TO MIX BOARD
IC137-144, IC146-149
TIMING GENERATOR
IC73-104
MEMORY CONTROLER
IC164
TTL-TO-ECL TRANSLATOR
IC136(6/6)
IC136(4/6)
IC129
CLOCK SELECT
IC128, COR1, 2
DELAY
IC122, 123, Q4, 5
PHASE DETECT
IC124, Q6, 7
LPF, HOLD AMP
IC125
IC126(1/2), Q9
VARIABLE PHASE SHIFT
IC136(2/6)
IC131-133, IC136(1/6)
PRESETTABLE FREQUENCY DIVIDER
IC127
PHASE DET
Q1, 2
PHASE ERROR AMP
IC126(2/2), Q8
PHASE SHIFT
IC118-121, Q3
OFF FREQ. DET
IC150-160, 188
MEMORY TIMING GENERATOR
FROM DRV BOARD
FROM EDD BOARD
1993, 7, 22
CGI BOARD
710X420
BY-A. I

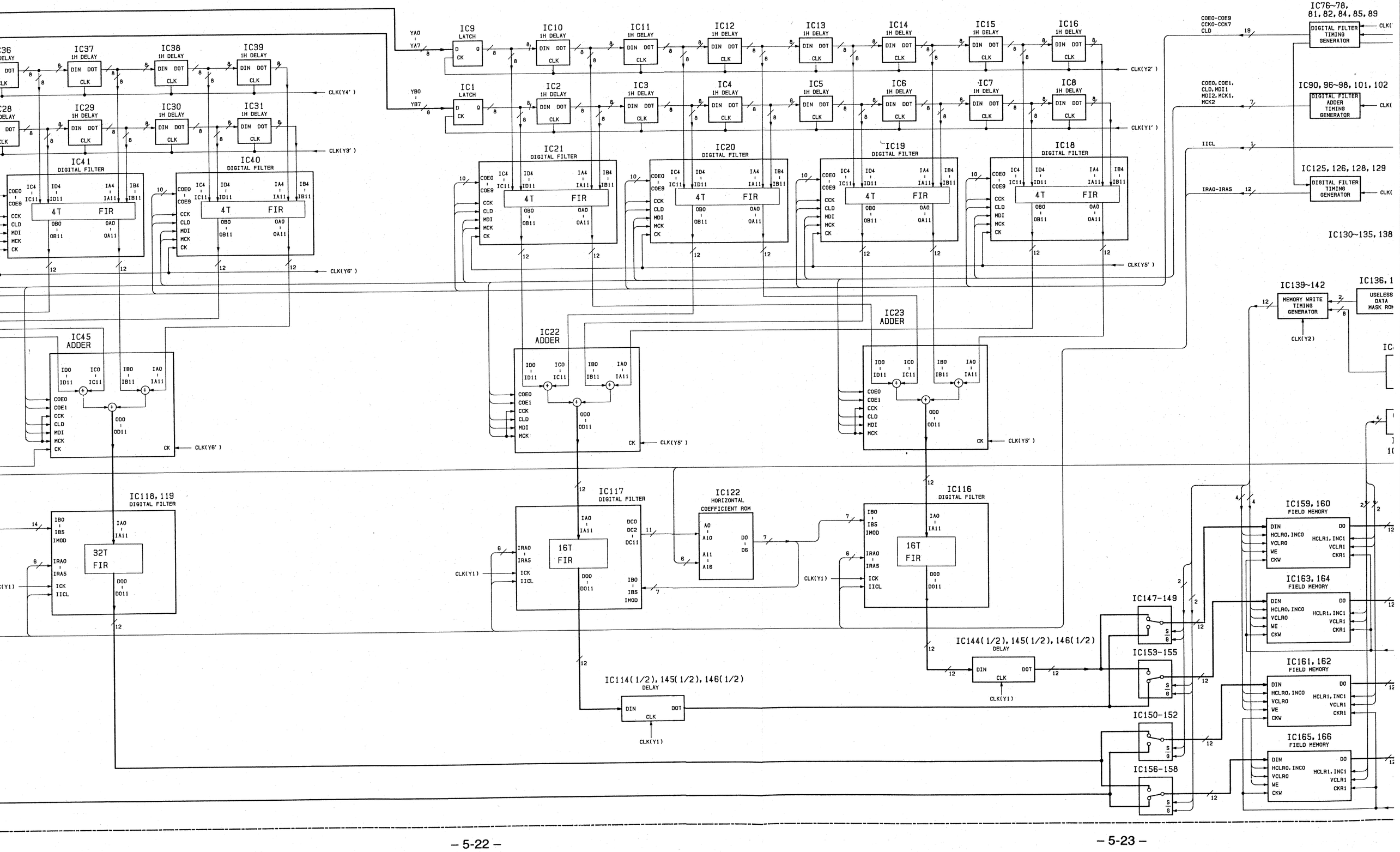
5-6. BLOCK DIAGRAM – DRV, MPU BOARDS –
5-6. ブロックダイヤグラムー DRV, MPU基板ー



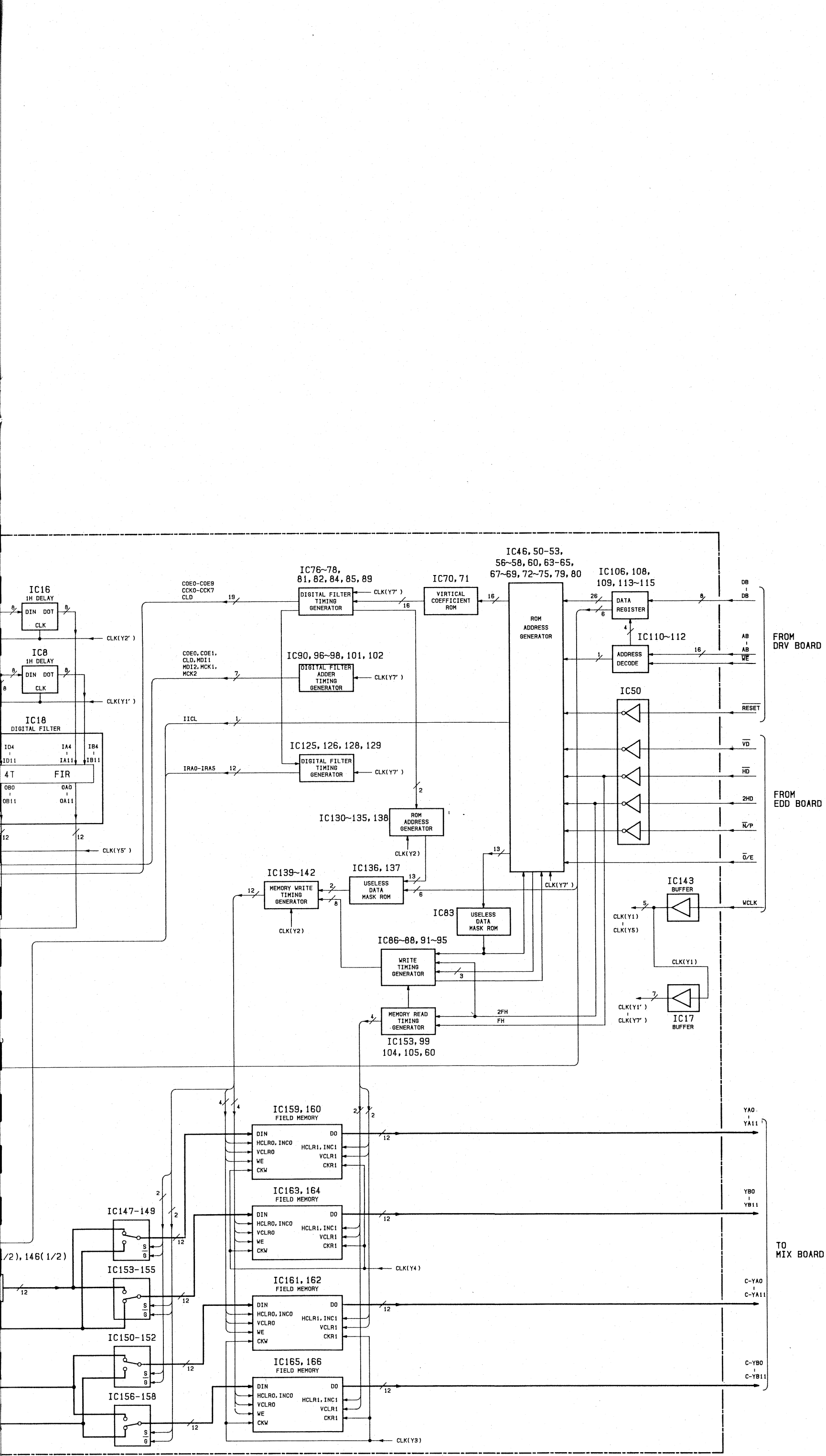

MPU BOARD
DRV BOARD
IC13
FREQUENCY DEVIDER (1/2)
CLOCK
IC14, 15
ADDRESS DECODER
CS0(E000H)
CS1(E100H)
CS2(E200H)
CS3(E300H)
CS4(E400H)
CS5(E500H)
CS6(E600H)
CS7(E700H)
D000H
A11-A15
IC8
DIR
RD
WRO
Y3
IC4
SIO
IC5
SIO
IC2
SIO
IC3
SIO
RST
CLOCK
TRNDT1
RTS1
DTR1
RCVDT1
CTS1
DSR1
TRNDT2
RTS2
DTR2
RCVDT2
CTS2
DSR2
RSLCTO
RSLCT1
DBO
DB7
D0-D7
UDTA
UDTB
UDTC
UDTD
TXD1
TXD0
RTS0
DTR0
RXD1
RXD0
CTS0
DSR0
TXD2
RXD2
TXD3
RXD3
RTS3
DTR3
TXD4
RXD4
RTS4
DTR4
CTS3
DSR3
CTS4
DSR4
IC49, 51, 53
LINE DRIVER
IC50, 52, 54
LINE RECEIVER
CN51
CN52
CN53
CN61
DTXD0, DTXD1
DRTS0, DRTS1
DDTR0, DDTR1
DRXD0, DRXD1
DCTS0, DCTS1
DDSR0, DDSR1
DTXD2, DTXD3
DRTS2, DRTS3
DDTR2, DDTR3
DRXD2, DRXD3
DCTS2, DCTS3
DDSR2, DDSR3
DTXD4, DTXD5
DRTS4, DRTS5
DDTR4, DDTR5
DRXD4, DRXD5
DCTS4, DCTS5
DDSR4, DDSR5
DTXD6, DTXD7
DRTS6, DRTS7
DDTR6, DDTR7
DRXD6, DRXD7
DCTS6, DCTS7
DDSR6, DDSR7
TO
ICU CONTROLLER
ABC/SAC
INTERFACE
IC37-IC48
LINE RECEIVER
MULTIPLEXER
CN1-CN48
UDTA-UDTD
U-RTNA(0-47), U-RTNB(0-47)
R DEN1-R DEN12
TO
UNIT
IC1-IC36
LINE DRIVER
SIO-SI95
SOYA(0-47), SOZA(0-47)
SOYB(0-47), SOZB(0-47)
SOYC(0-47), SOZC(0-47)
IC16
EEPROM
WRO
RD
DOOOH
AO-A7
I/OO
I/O7
IC10, IC11
IC12
AB0
AB15
A0
A15
DBO
DB7
DO
D7
RY1
Q1
RELAY DRIVE
Q2
RELAY DRIVE
DRVSEL1
DRVSEL2
5V-2
DRVPOW1(LINE DRIVER B)
DRVPOW2(LINE DRIVER C)
RY2
RY3
Q3
RELAY START
Q4
RELAY RESET
Q5
RELAY START
Q6
RELAY RESET
RELAY1
RELAY2
RELAY3
RELAY4
CN54
JT POWER
UTILITY

5-7. BLOCK DIAGRAM – DSP BOARD –
5-7. ブロックダイヤグラムー DSP 基板ー




YA0
YA7
YB0
YB7
IC9
LATCH
IC1
LATCH
IC10
IC2
IC11
IC3
IC12
IC4
IC13
IC5
IC14
IC6
IC15
IC7
IC16
IC8
1H DELAY
DIN DOT
CLK
CLK(Y4')
CLK(Y3')
CLK(Y2')
CLK(Y1')
IC41
IC40
IC21
IC20
IC19
IC18
DIGITAL FILTER
4T FIR
CLK(Y6')
CLK(Y5')
IC45
ADDER
IC22
ADDER
IC23
ADDER
IC118, 119
DIGITAL FILTER
32T FIR
IC117
DIGITAL FILTER
16T FIR
IC122
HORIZONTAL
COEFFICIENT ROM
IC116
DIGITAL FILTER
16T FIR
IC114(1/2), 145(1/2), 146(1/2)
DELAY
IC144(1/2), 145(1/2), 146(1/2)
DELAY
CLK(Y1)
IC76~78, 81, 82, 84, 85, 89
DIGITAL FILTER TIMING GENERATOR
COEO-COE9
CCKO-CCK7
CLD
IC90, 96~98, 101, 102
DIGITAL FILTER ADDER TIMING GENERATOR
COEO, COE1, CLD, MDI1, MDI2, MCK1, MCK2
IICL
IC125, 126, 128, 129
DIGITAL FILTER TIMING GENERATOR
IRA0-IRA5
IC130~135, 138
IC139~142
MEMORY WRITE TIMING GENERATOR
CLK(Y2)
IC147-149
IC153-155
IC150-152
IC156-158
IC159, 160
FIELD MEMORY
IC163, 164
FIELD MEMORY
IC161, 162
FIELD MEMORY
IC165, 166
FIELD MEMORY
DIN
DO
HCLRO, INCO
HCLR1, INC1
VCLRO
VCLR1
WE
CKR1
CKW

5-8



5-9. PRINTED WIRING BOAR AND SCHEMATIC DIAGR

Note:

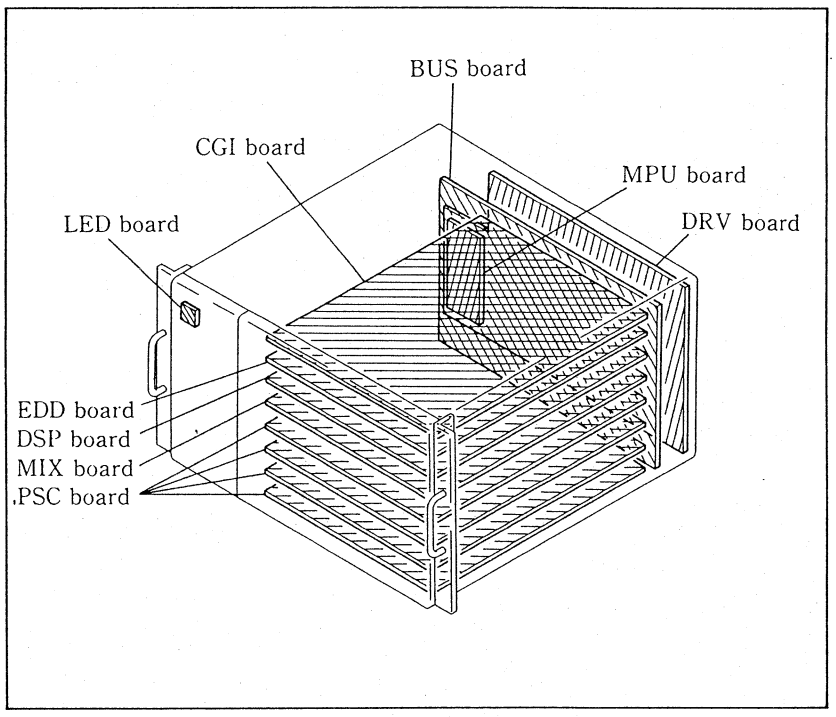
- Always use new components when rep components. Never reuse chips once the removed from the board. Also, be caref tantalum capacitors as the minus side is ser
- All capacitors are in μF unless otherwise n 50 V or less are not indicated except for el tantalums.
- All resistors are in ohms. kΩ = 1000Ω, MΩ = 1000kΩ

- ⊥ : earth-ground.
- ⏚ : earth-chassis.
- ▬ : B+bus.
- ▪▪▪ : B-bus.

Reference Information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CAR
	: FUSE	NONFLAMMABLE FUS
	: RS	NONFLAMMABLE MET
	: RB	NONFLAMMABLE CEM
	: RW	NONFLAMMABLE WIR
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYEST
	: MPP	METALIZED POLYPRO
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

5-8. CIRCUIT BOARDS LOCATION
5-8. 基板配置図



BOARDS
DIAGRAMS

when replacing chips
s once they have been
, be careful in handing
side is sensitive to heat.
otherwise noted. pF: μμF
xcept for electrolytic and

M

ABLE CARBON
ABLE FUSIBLE
ABLE METAL OXIDE
ABLE CEMENT
ABLE WIREWOUND
UCTOR

YLENE

POLYESTER
POLYPROPYLENE

ERATURE
E

5-9. プリント図、回路図

- チップ部品を交換するときは必ず新しい部品を使用して下さい。基板から取り外したチップは決して再度使用しないで下さい。タンタル・コンデンサはマイナス側が熱に敏感なので取扱に注意してください。
- ケミコン、タンタルを除くコンデンサで、耐圧50WV以下のものは、その耐圧を省略。単位はすべてμF (pはpF)。
  耐圧表示のないケミコンは50Vです。
- 定格電力表示のない抵抗は5mmピッチ、1/4W、チップ抵抗は1/10Wです。
- 単位はすべてΩ。
- ⊥ : 1次側GND
- ⏚ : 2次側GND
- ——▽V : B+ライン。
- - - -▽V : B-ライン。
  (実測値は異なる場合かあります。)

－部品特性略称表－

・固定抵抗

RN	:金属被膜
RC	:ソリッド
FPRD	:不燃性カーボン
FUSE	:不燃性ヒューズ
RS	:不燃性酸化金属皮膜
RB	:不燃性セメント
RW	:不燃性巻線
※	:調整抵抗

・マイクロインダクタ

LF-8L	:マイクロインダクタ

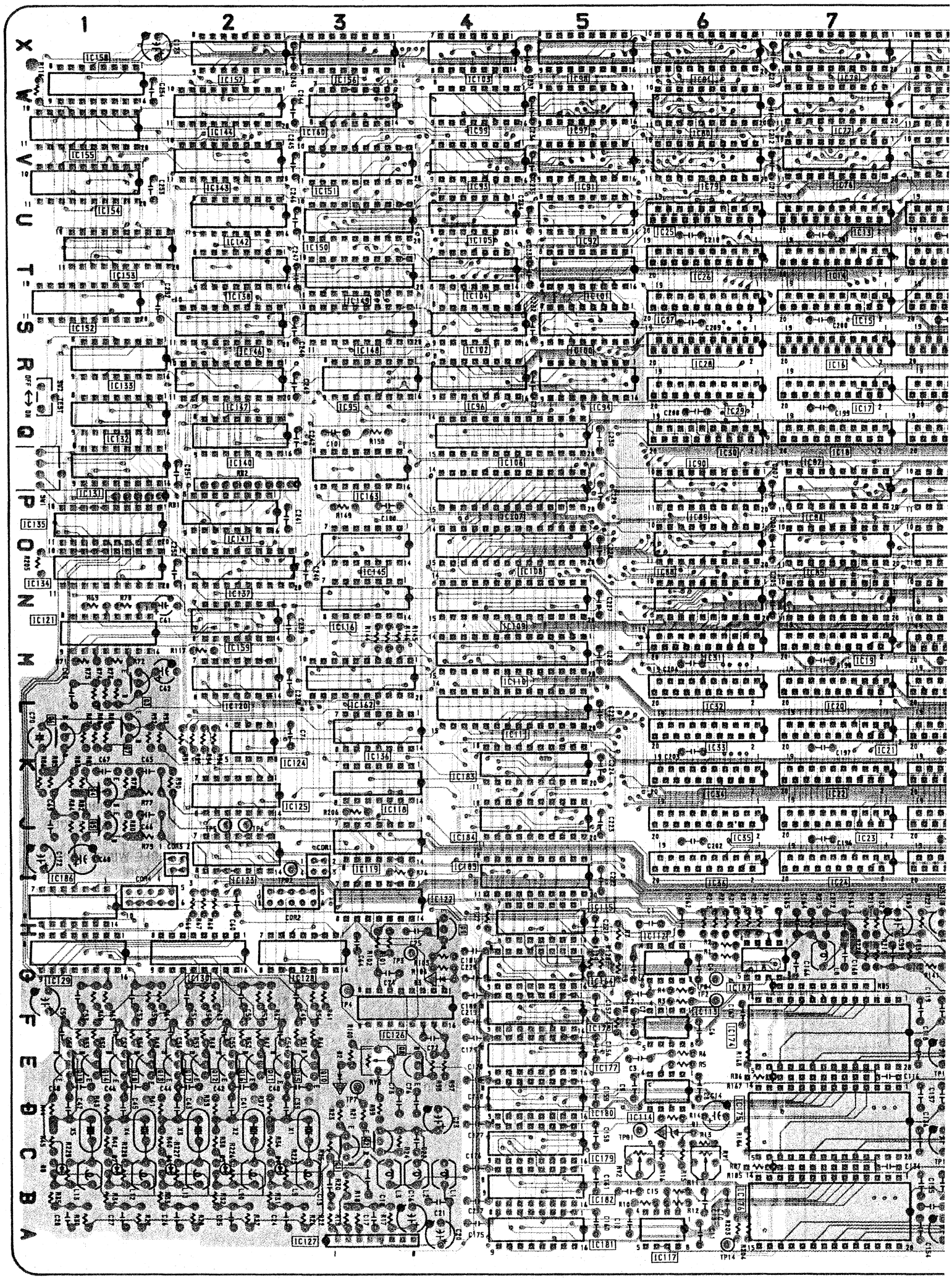
・コンデンサ

TA	:タンタル
PS	:スチロール
PP	:ポリプロピレン
PT	:マイラ
MPS	:メタライズドポリエステル
MPP	:メタライズドポリプロピレン
ALB	:バイポーラ
ALT	:高温用
ALR	:ハイリップル

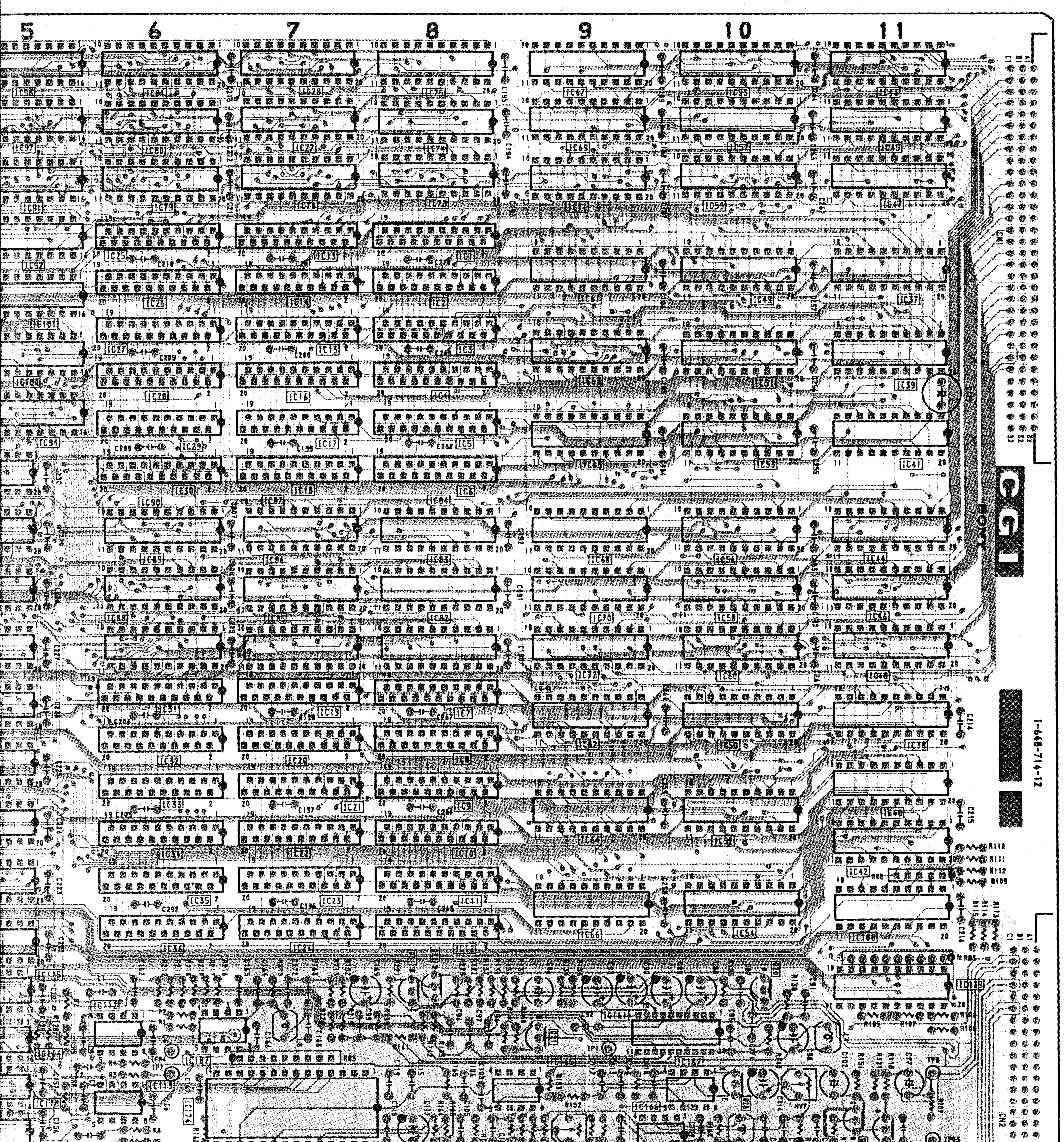
PRINTED WIRING BOARD – CGI BOARD (A Side) –
CGI プリント図（A 面側）

CGI Board–A side
CGI 基板（A 面側）

IC		IC		IC		Q	
IC1	U-8	IC66	J-9	IC131	Q-1	Q6	L-1
IC2	T-8	IC67	X-9	IC132	Q-1	Q7	L-1
IC3	S-8	IC68	P-9	IC133	R-1	Q8	E-3
IC4	R-8	IC69	W-9	IC134	O-1	Q9	H-4
IC5	Q-8	IC70	O-9	IC135	P-1	Q10	E-3
		IC71	V-9	IC136	L-3	Q11	E-2
		IC72	N-9	IC137	O-2	Q12	E-2
IC6	Q-8	IC73	V-8	IC138	T-2	Q13	E-1
IC7	M-8	IC74	W-8	IC139	H-11	Q14	E 1
IC8	L-8	IC75	X-8	IC140	Q-2	Q15	E-2
IC9	L-8						
IC10	K-8	IC76	V-7	IC141	P-2	Q16	E-2
		IC77	W-7	IC142	U-2	Q17	E-2
IC11	J-8	IC78	X-7	IC143	V-2	Q18	E-1
IC12	I-8	IC79	V-6	IC144	W-2	Q19	E-1
IC13	U-7	IC80	W-6	IC145	O-3	Q20	H-10
IC14	T-7						
IC15	S-7	IC81	X-6	IC146	S-2	Q21	G-11
		IC82	N-8	IC147	R-2	Q22	E-11
IC16	R-7	IC83	O-8	IC148	S-3	Q23	E-11
IC17	Q-7	IC84	P-8	IC149	T-3	Q24	D-11
IC18	Q-7	IC85	N-7	IC150	U-3	Q25	D-11
IC19	M-7						
IC20	L-7	IC86	O-7	IC151	V-3	Q26	B-11
		IC87	P-7	IC152	T-1	Q27	B-11
IC21	L-7	IC88	N-6	IC153	U-1	Q28	F-10
IC22	K-7	IC89	O-6	IC154	V-1	Q29	D-10
IC23	J-7	IC90	P-9	IC155	W-1	Q30	B-10
IC24	I-7						
IC25	U-6	IC91	V-5	IC156	X-3	Q31	H-8
		IC92	U-5	IC157	X-2	Q32	H-8
IC26	T-6	IC93	V-4	IC158	W-1		
IC27	S-6	IC94	R-5	IC159	N-2	**DIODE**	
IC28	R-6	IC95	R-3	IC160	W-3		
IC29	Q-6					D1	D-6
IC30	Q-6	IC96	R-4	IC161	G-10	D2	E-3
		IC97	W-5	IC162	M-3	D3	G-4
IC31	M-6	IC98	X-5	IC163	Q-3	D4	C-2
IC32	L-6	IC99	W-4	IC164	G-4	D5	C-2
IC33	L-6	IC100	S-5	IC165	F-9		
IC34	K-6					D6	C-2
IC35	J-6	IC101	T-5	IC166	E-10	D7	C-1
		IC102	S-4	IC167	F-10	D8	C-1
IC36	I-6	IC103	X-4	IC168	D-9	**VARIABLE RESISTOR**	
IC37	T-11	IC104	T-4	IC169	C-10		
IC38	M-11	IC105	U-4	IC170	D-10	RV1	C-6
IC39	S-11					RV2	C-5
IC40	L-11	IC106	Q-4	IC171	B-9	RV3	E-3
		IC107	P-4	IC172	A-9	RV4	E-9
IC41	Q-11	IC108	O-4	IC173	B-10	RV5	C-9
IC42	K-11	IC109	N-4	IC174	F-7		
IC43	X-11	IC110	M-4	IC175	D-7	RV6	A-9
IC44	P-11					RV7	F-10
IC45	W-11	IC111	L-4	IC176	B-7	RV8	D-10
		IC112	G-6	IC177	E-4	RV9	B-10
IC46	O-11	IC113	F-6	IC178	F-4		
IC47	V-11	IC114	E-6	IC179	C-4		
IC48	N-11	IC115	H-4	IC180	D-4		
IC49	T-10						
IC50	M-10	IC116	N-3	IC181	A-4		
		IC117	A-6	IC182	B-4		
IC51	S-10	IC118	K-3	IC183	K-4		
IC52	K-10	IC119	J-3	IC184	J-4		
IC53	Q-10	IC120	M-2	IC185	I-4		
IC54	J-10						
IC55	X-10	IC121	M-1	IC186	I-1		
		IC122	I-3	IC187	G-6		
IC56	P-10	IC123	J-2	IC188	J-11		
IC57	W-10	IC124	K-2				
IC58	O-10	IC125	K-2	**TRANSISTOR**			
IC59	V-10						
IC60	N-10	IC126	F-3	Q1	C-3		
		IC127	A-3	Q2	C-3		
IC61	T-9	IC128	H-3	Q3	M-1		
IC62	M-9	IC129	H-1	Q4	K-1		
IC63	S-9	IC130	H-2	Q5	J-1		
IC64	K-9						
IC65	Q-9						



- ▒▒▒▒: Pattern from the side which enables seeing.
- ▒▒▒▒: Pattern of the rear side.
- ▒▒▒▒: は見た面側のパターン。
- ▒▒▒▒: は裏側のパターン。



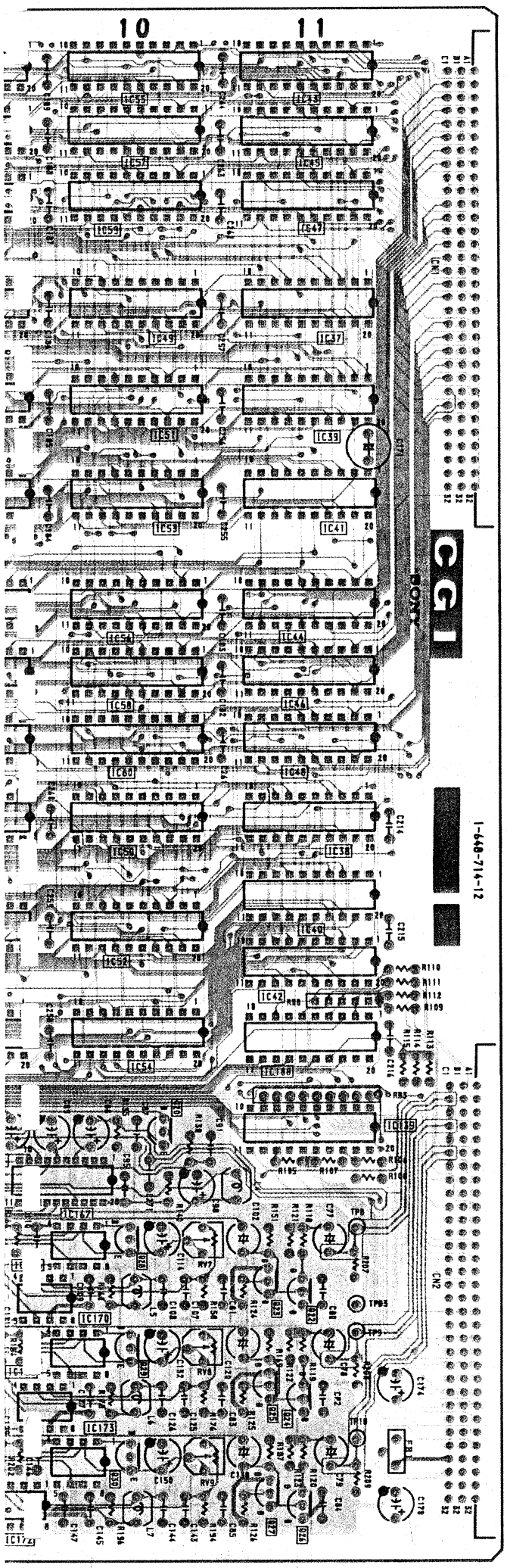
CGI Board–B sid
CGI 基板（B 面側）

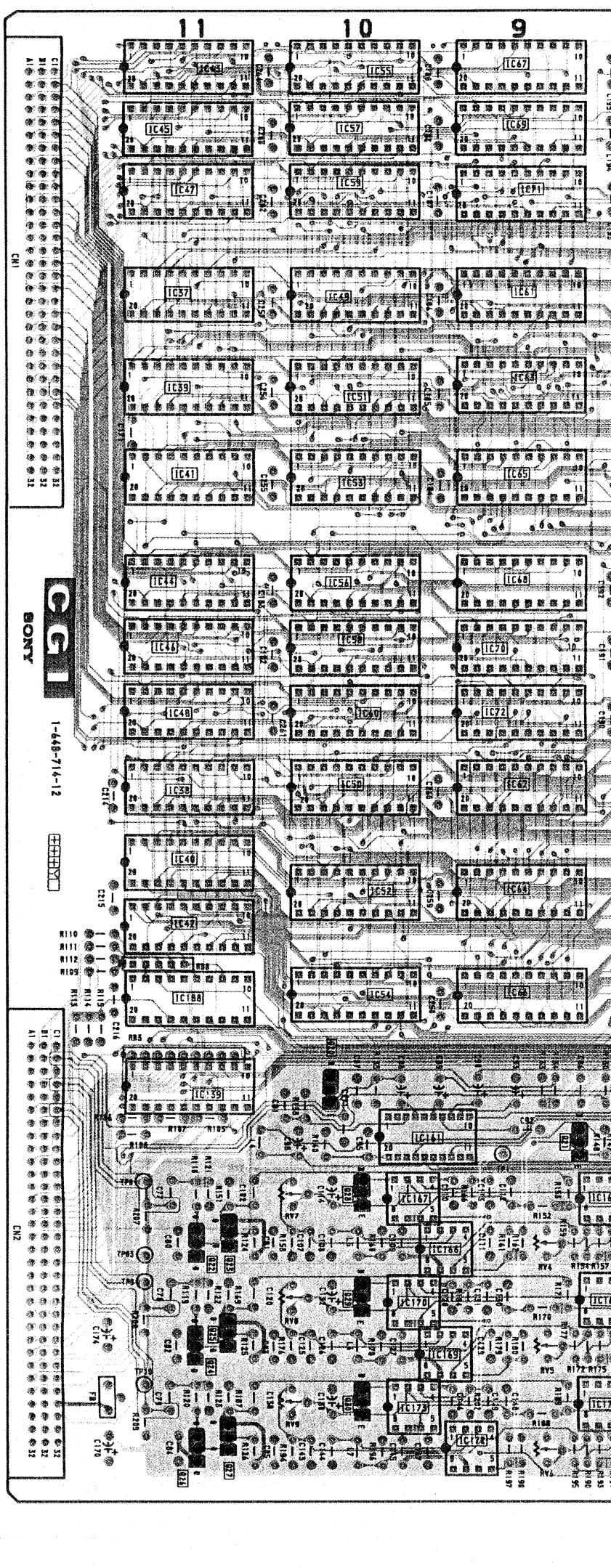
IC	
IC1	U-8
IC2	T-8
IC3	S-8
IC4	R-8
IC5	Q-8
IC6	Q-8
IC7	M-8
IC8	L-8
IC9	L-8
IC10	K-8
IC11	J-8
IC12	I-8
IC13	U-7
IC14	T-7
IC15	S-7
IC16	R-7
IC17	Q-7
IC18	Q-7
IC19	M-7
IC20	L-7
IC21	L-7
IC22	K-7
IC23	J-7
IC24	I-7
IC25	U-6
IC26	T-6
IC27	S-6
IC28	R-6
IC29	Q-6
IC30	Q-6
IC31	M-6
IC32	L-6
IC33	L-6
IC34	K-6
IC35	J-6
IC36	I-6
IC37	T-11
IC38	M-11
IC39	S-11
IC40	L-11
IC41	Q-11
IC42	K-11
IC43	X-11
IC44	P-11
IC45	W-11
IC46	O-11
IC47	V-11
IC48	N-11
IC49	T-10
IC50	M-10
IC51	S-10
IC52	K-10
IC53	Q-10
IC54	J-10
IC55	X-10
IC56	P-10
IC57	W-10
IC58	O-10
IC59	V-10
IC60	N-10
IC61	T-9
IC62	M-9
IC63	S-9
IC64	K-9
IC65	Q-9

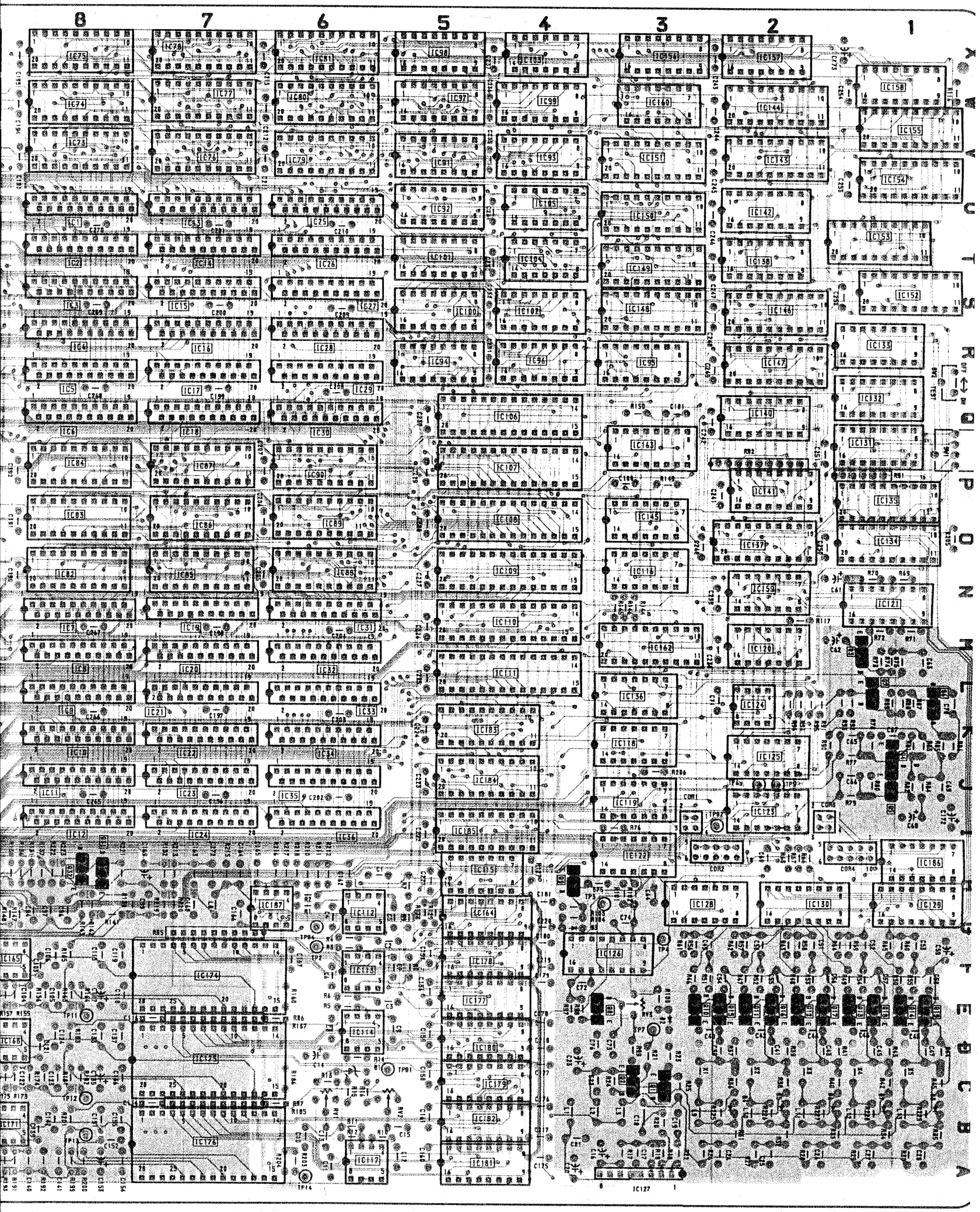
CGI Board–B side
CGI基板（B面側）

IC							
IC1	U-8	IC66	J-9	IC131	Q-1	Q6	L-1
IC2	T-8	IC67	X-9	IC132	Q-1	Q7	L-1
IC3	S-8	IC68	P-9	IC133	R-1	Q8	E-3
IC4	R-8	IC69	W-9	IC134	O-1	Q9	H-4
IC5	Q-8	IC70	O-9	IC135	P-1	Q10	E-3
		IC71	V-9	IC136	L-3	Q11	E-2
		IC72	N-9	IC137	O-2	Q12	E-2
IC6	Q-8	IC73	V-8	IC138	T-2	Q13	E-1
IC7	M-8	IC74	W-8	IC139	H-11	Q14	E-1
IC8	L-8	IC75	X-8	IC140	Q-2	Q15	E-2
IC9	L-8						
IC10	K-8	IC76	V-7	IC141	P-2	Q16	E-2
		IC77	W-7	IC142	U-2	Q17	E-2
IC11	J-8	IC78	X-7	IC143	V-2	Q18	E-1
IC12	I-8	IC79	V-6	IC144	W-2	Q19	E-1
IC13	U-7	IC80	W-6	IC145	O-3	Q20	H-10
IC14	T-7						
IC15	S-7	IC81	X-6	IC146	S-2	Q21	G-11
		IC82	N-8	IC147	R-2	Q22	E-11
IC16	R-7	IC83	O-8	IC148	S-3	Q23	E-11
IC17	Q-7	IC84	P-8	IC149	T-3	Q24	D-11
IC18	Q-7	IC85	N-7	IC150	U-3	Q25	D-11
IC19	M-7						
IC20	L-7	IC86	O-7	IC151	V-3	Q26	B-11
		IC87	P-7	IC152	T-1	Q27	B-11
IC21	L-7	IC88	N-6	IC153	U-1	Q28	F-10
IC22	K-7	IC89	O-6	IC154	V-1	Q29	D-10
IC23	J-7	IC90	P-9	IC155	W-1	Q30	B-10
IC24	I-7						
IC25	U-6	IC91	V-5	IC156	X-3	Q31	H-8
		IC92	U-5	IC157	X-2	Q32	H-8
IC26	T-6	IC93	V-4	IC158	W-1		
IC27	S-6	IC94	R-5	IC159	N-2	DIODE	
IC28	R-6	IC95	R-3	IC160	W-3		
IC29	Q-6					D1	D-6
IC30	Q-6	IC96	R-4	IC161	G-10	D2	E-3
		IC97	W-5	IC162	M-3	D3	G-4
IC31	M-6	IC98	X-5	IC163	Q-3	D4	C-2
IC32	L-6	IC99	W-4	IC164	G-4	D5	C-2
IC33	L-6	IC100	S-5	IC165	F-9		
IC34	K-6					D6	C-2
IC35	J-6	IC101	T-5	IC166	E-10	D7	C-1
		IC102	S-4	IC167	F-10	D8	C-1
IC36	I-6	IC103	X-4	IC168	D-9	VARIABLE RESISTOR	
IC37	T-11	IC104	T-4	IC169	C-10		
IC38	M-11	IC105	U-4	IC170	D-10	RV1	C-6
IC39	S-11					RV2	C-5
IC40	L-11	IC106	Q-4	IC171	B-9	RV3	E-3
		IC107	P-4	IC172	A-9	RV4	E-9
IC41	Q-11	IC108	O-4	IC173	B-10	RV5	C-9
IC42	K-11	IC109	N-4	IC174	F-7		
IC43	X-11	IC110	M-4	IC175	D-7	RV6	A-9
IC44	P-11					RV7	F-10
IC45	W-11	IC111	L-4	IC176	B-7	RV8	D-10
		IC112	G-6	IC177	E-4	RV9	B-10
IC46	O-11	IC113	F-6	IC178	F-4		
IC47	V-11	IC114	E-6	IC179	C-4		
IC48	N-11	IC115	H-4	IC180	D-4		
IC49	T-10						
IC50	M-10	IC116	N-3	IC181	A-4		
		IC117	A-6	IC182	B-4		
IC51	S-10	IC118	K-3	IC183	K-4		
IC52	K-10	IC119	J-3	IC184	J-4		
IC53	Q-10	IC120	M-2	IC185	I-4		
IC54	J-10						
IC55	X-10	IC121	M-1	IC186	I-1		
		IC122	I-3	IC187	G-6		
IC56	P-10	IC123	J-2	IC188	J-11		
IC57	W-10	IC124	K-2				
IC58	O-10	IC125	K-2	TRANSISTOR			
IC59	V-10						
IC60	N-10	IC126	F-3	Q1	C-3		
		IC127	A-3	Q2	C-3		
IC61	T-9	IC128	H-3	Q3	M-1		
IC62	M-9	IC129	H-1	Q4	K-1		
IC63	S-9	IC130	H-2	Q5	J-1		
IC64	K-9						
IC65	Q-9						

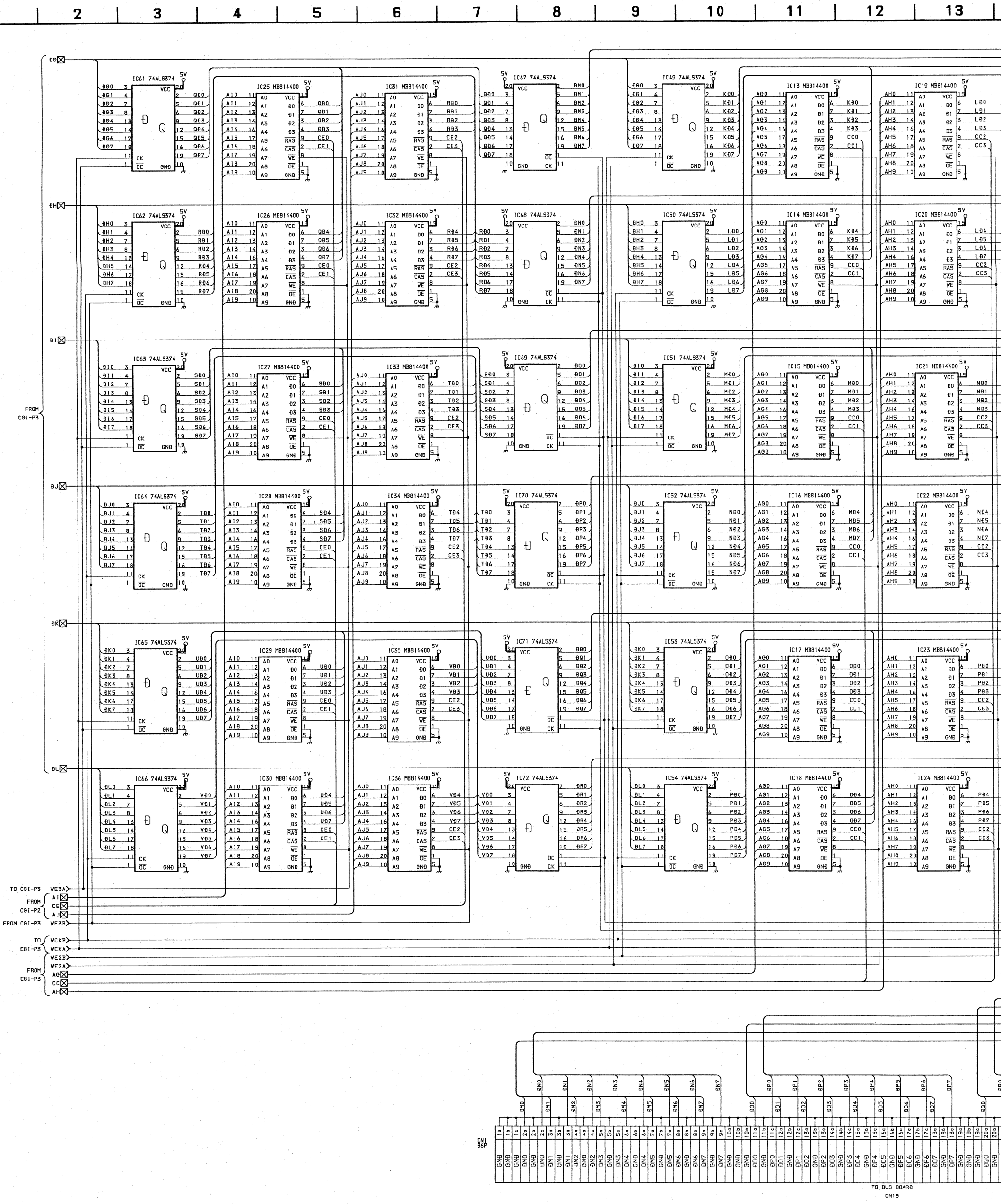
PRINTED WIRING BOARD – CGI BOARD (B Side) –
CGIプリント図（B面側）






8
7
6
5
4
3
2
1
MAIN PCB (SIDE A)

SCHEMATIC DIAGRAM – CGI BOARD (1/4) –
CGI（1/4）基板回路図



13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23

CGI

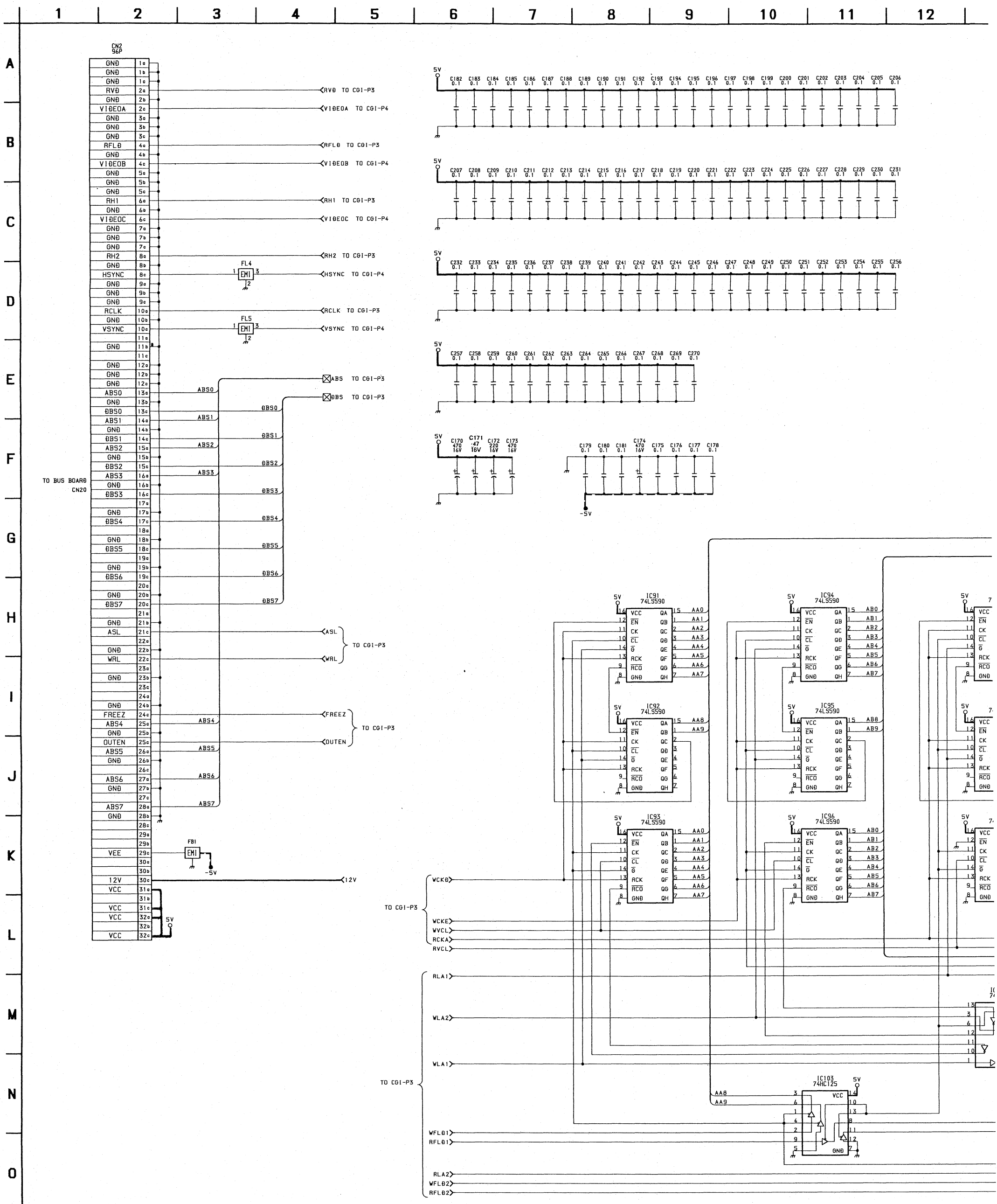
P1

(CG INTERFACE)

TO CGI -P3

FROM CGI-P2

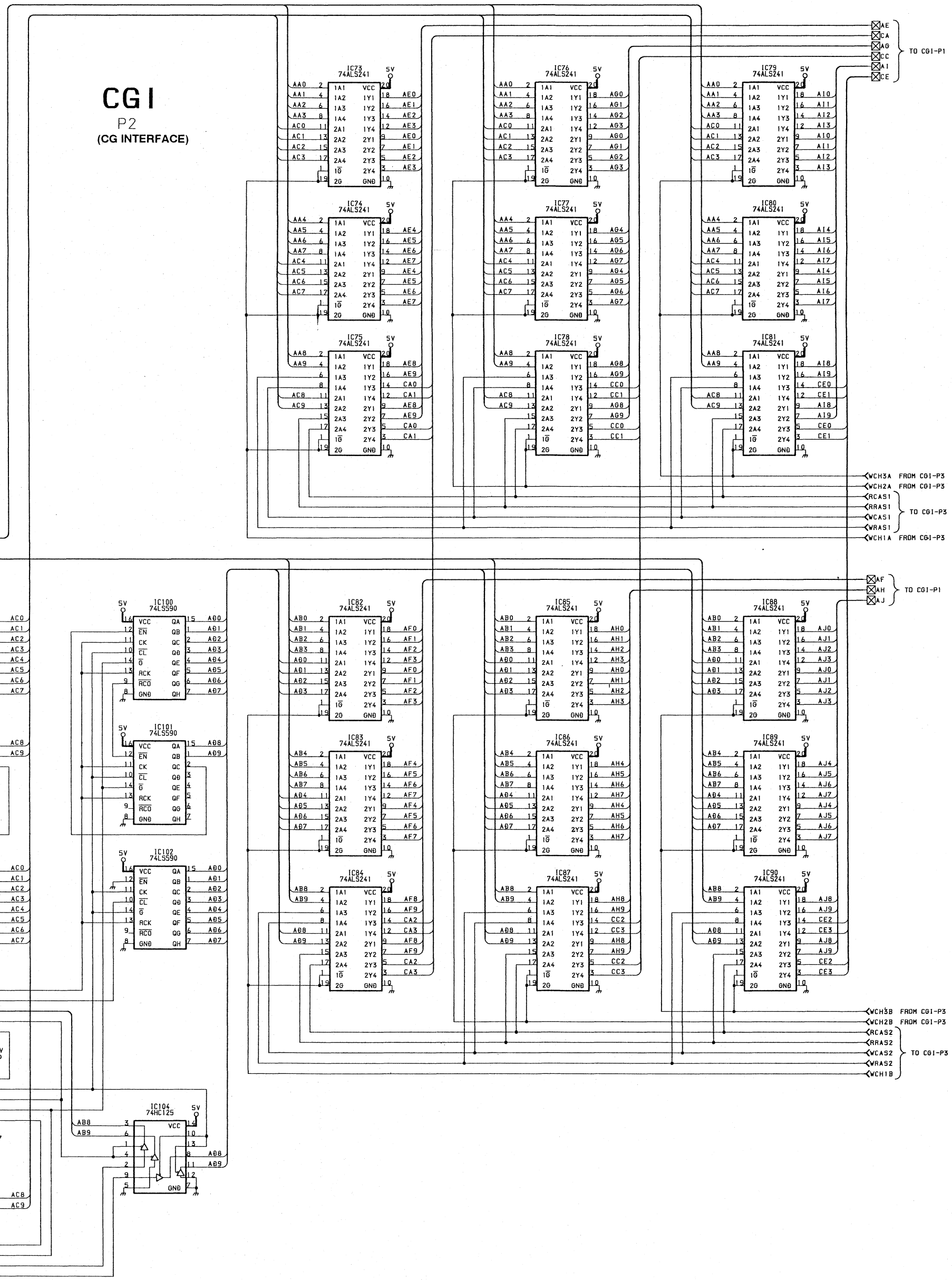
SCHEMATIC DIAGRAM – CGI BOARD (2/4) –
CGI（2/4）基板回路図



CG I

P2

(CG INTERFACE)

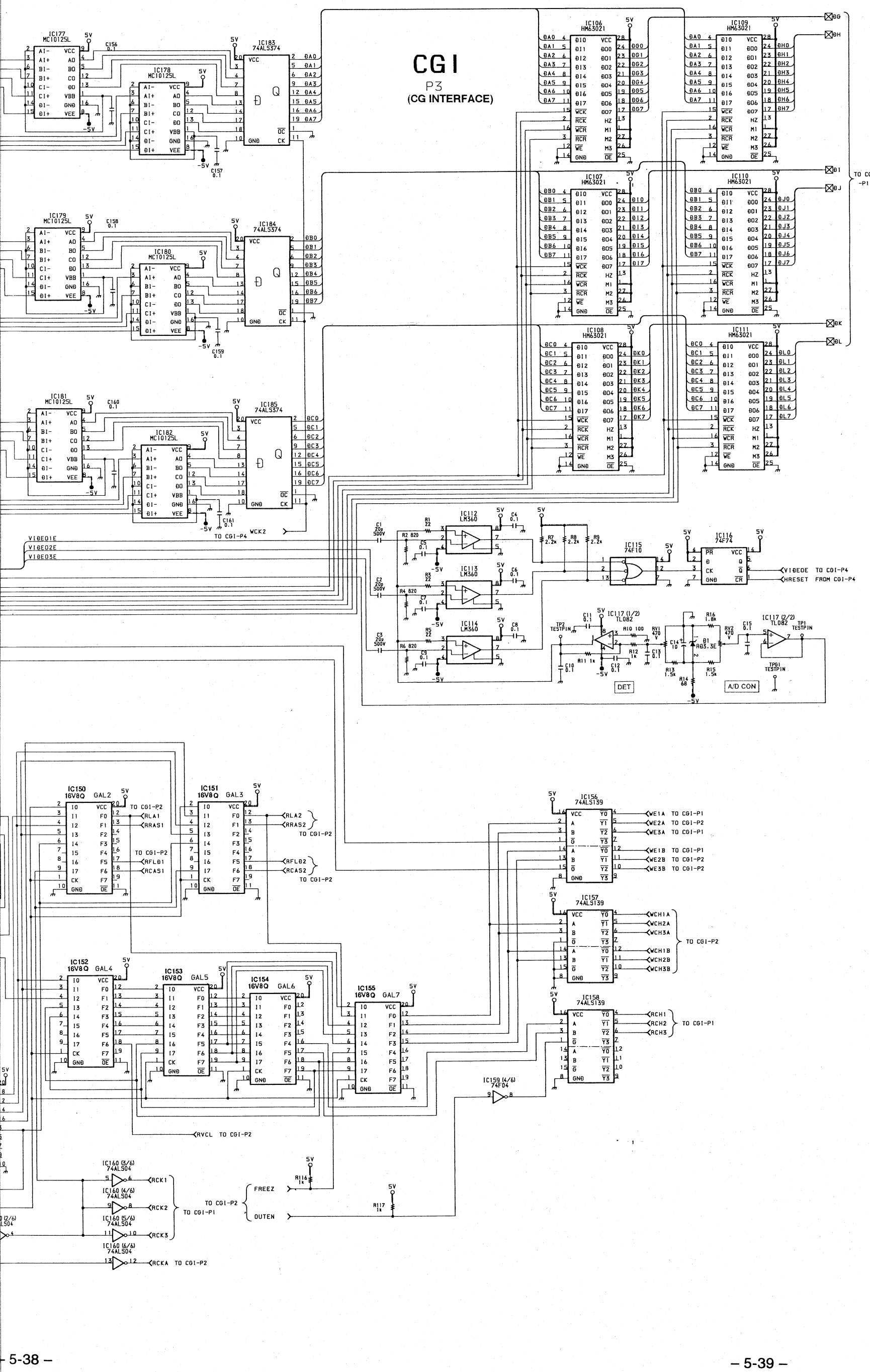


SCHEMATIC DIAGRAM – CGI BOARD (3/4) –
CGI（3/4）基板回路図

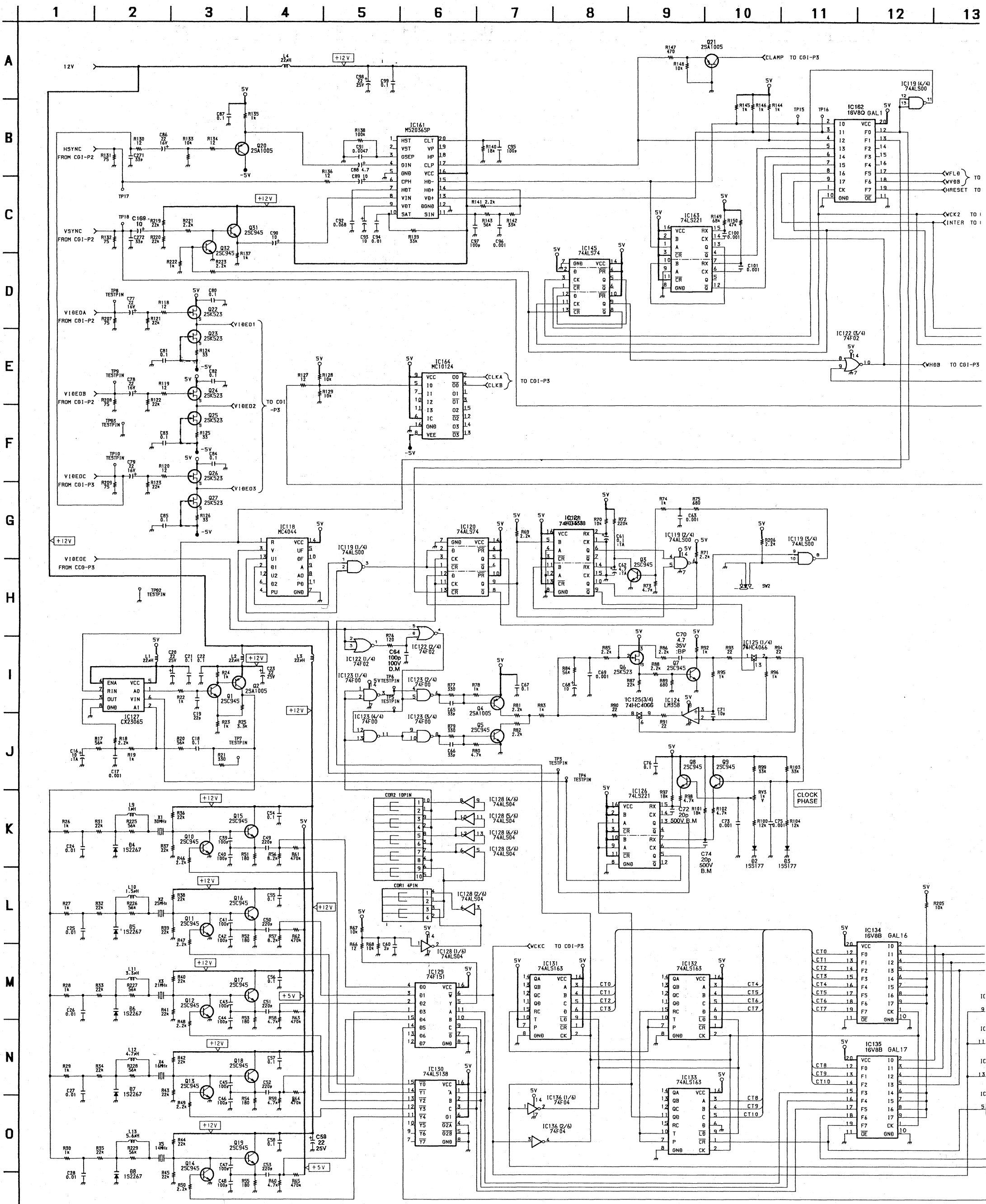
CGI

P3

(CG INTERFACE)



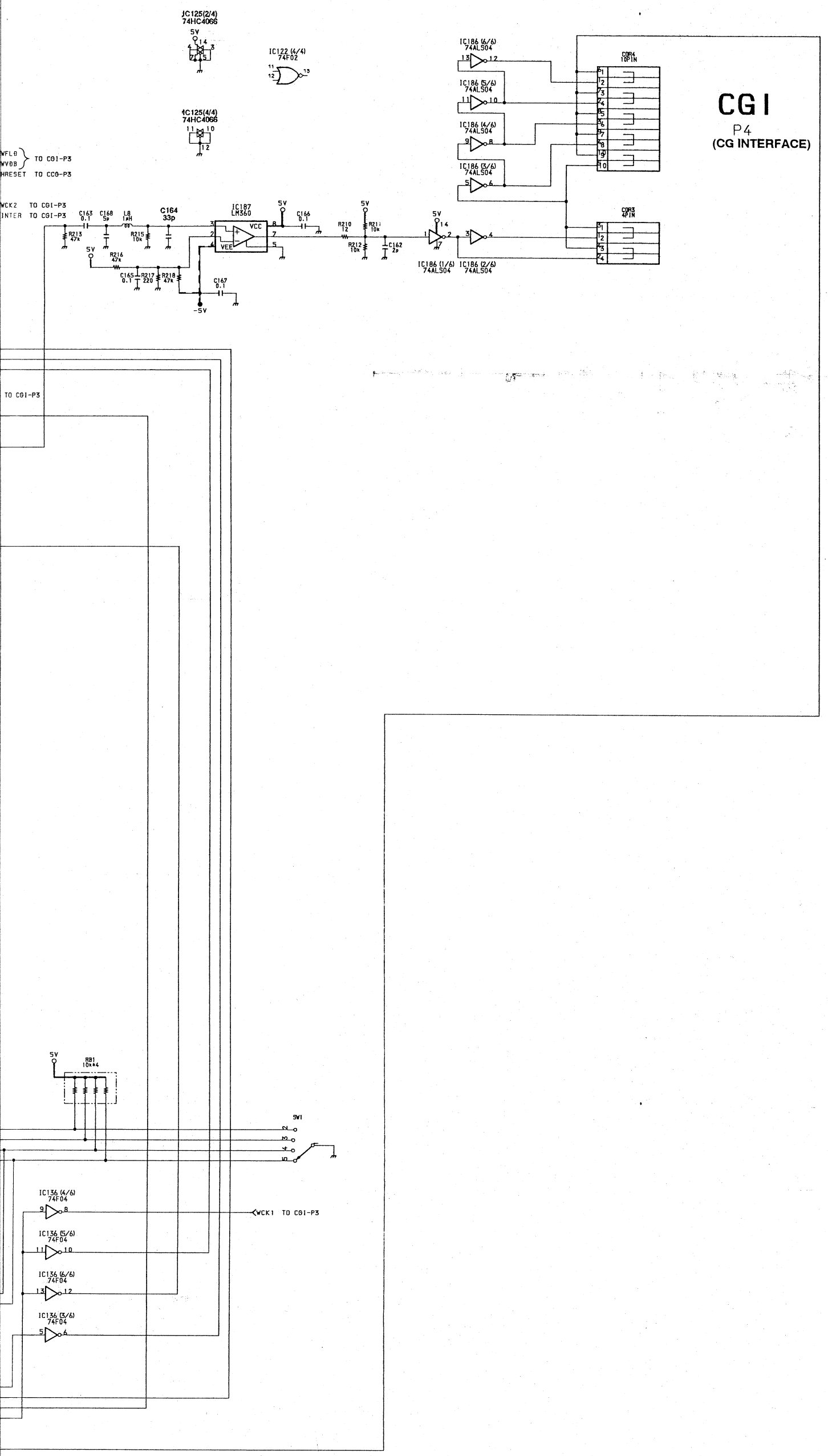
SCHEMATIC DIAGRAM – CGI BOARD (4/4) –
CGI（4/4）基板回路図


1 2 3 4 5 6 7 8 9 10 11 12 13
A B C D E F G H I J K L M N O P
12V
+12V
5V
-5V
L4 22μH
C98 22 25V
C99 0.1
HSYNC FROM CGI-P2
VSYNC FROM CGI-P2
VIDEOA FROM CGI-P2
VIDEOB FROM CGI-P2
VIDEOC FROM CGI-P3
VIDEOE FROM CCG-P3
TP17
TP18
TP8 TESTPIN
TP9 TESTPIN
TP93 TESTPIN
TP10 TESTPIN
TP92 TESTPIN
IC161 M52036SP
HST CLT
VST VP
GSEP HP
GIN CLP
GND VCC
CPH HD-
HDT HD+
VIN VD+
VDT BGND
SAT SIN
Q20 2SA1005
Q31 2SC945
Q32 2SC945
Q21 2SA1005
CLAMP TO CGI-P3
IC162 16V8Q GAL1
IC119 (4/4) 74ALS00
IC163 74LS221
IC145 74ALS74
IC122 (3/4) 74F02
WFLD
WVDD
HRESET
WCK2
INTER
WHDD
TO CGI-P3
Q22 2SK523
Q23 2SK523
Q24 2SK523
Q25 2SK523
Q26 2SK523
Q27 2SK523
VIDEO1
VIDEO2
VIDEO3
TO CGI -P3
IC164 MC10124
CLKA
CLKB
IC118 MC4044
IC120 74ALS74
IC121 74HC4538
IC119 (1/4) 74ALS00
IC119 (2/4) 74ALS00
IC119 (3/4) 74ALS00
Q3 2SC945
SW2
IC122 (1/4) 74F02
IC122 (2/4) 74F02
IC123 (1/4) 74F00
IC123 (2/4) 74F00
IC123 (3/4) 74F00
IC123 (4/4) 74F00
Q4 2SA1005
Q5 2SC945
IC125 (1/4) 74HC4066
IC125 (3/4) 74HC4066
IC124 LM358
Q6 2SK523
Q7 2SC945
IC127 CX23065
Q1 2SC945
Q2 2SA1005
IC126 74LS221
Q8 2SC945
Q9 2SC945
CLOCK PHASE
D2 1SS177
D3 1SS177
COR2 10PIN
COR1 4PIN
IC128 (1/6) 74ALS04
IC128 (2/6) 74ALS04
IC128 (3/6) 74ALS04
IC128 (4/6) 74ALS04
IC128 (5/6) 74ALS04
IC128 (6/6) 74ALS04
Q10 2SC945
Q11 2SC945
Q12 2SC945
Q13 2SC945
Q14 2SC945
Q15 2SC945
Q16 2SC945
Q17 2SC945
Q18 2SC945
Q19 2SC945
D4 1S2267
D5 1S2267
D6 1S2267
D7 1S2267
D8 1S2267
IC129 74F151
IC130 74ALS138
IC131 74ALS163
IC132 74ALS163
IC133 74ALS163
IC136 (1/6) 74F04
IC136 (2/6) 74F04
WCKC TO CGI-P3
CT0
CT1
CT2
CT3
CT4
CT5
CT6
CT7
CT8
CT9
CT10
IC134 16V8B GAL16
IC135 16V8B GAL17
IC141 74HC4538
Q83 2SC945
SW1
IC142 74ALS74
IC143 74ALS221
IC144 74ALS163
IC145 74ALS163
IC146 74ALS163
IC147 74ALS163
IC148 74ALS163
IC149 74ALS163
IC150 74ALS163
IC151 74ALS163
IC152 74ALS163
IC153 74ALS163
IC154 74ALS163
IC155 74ALS163
IC156 74ALS163
IC157 74ALS163
IC158 74ALS163
IC159 74ALS163
IC160 74ALS163
IC161 74ALS163
IC162 74ALS163
IC163 74ALS163

CG I

P4

(CG INTERFACE)



PRINTED WIRING BOARD – MPU BOARD –
MPU 基板プリント図

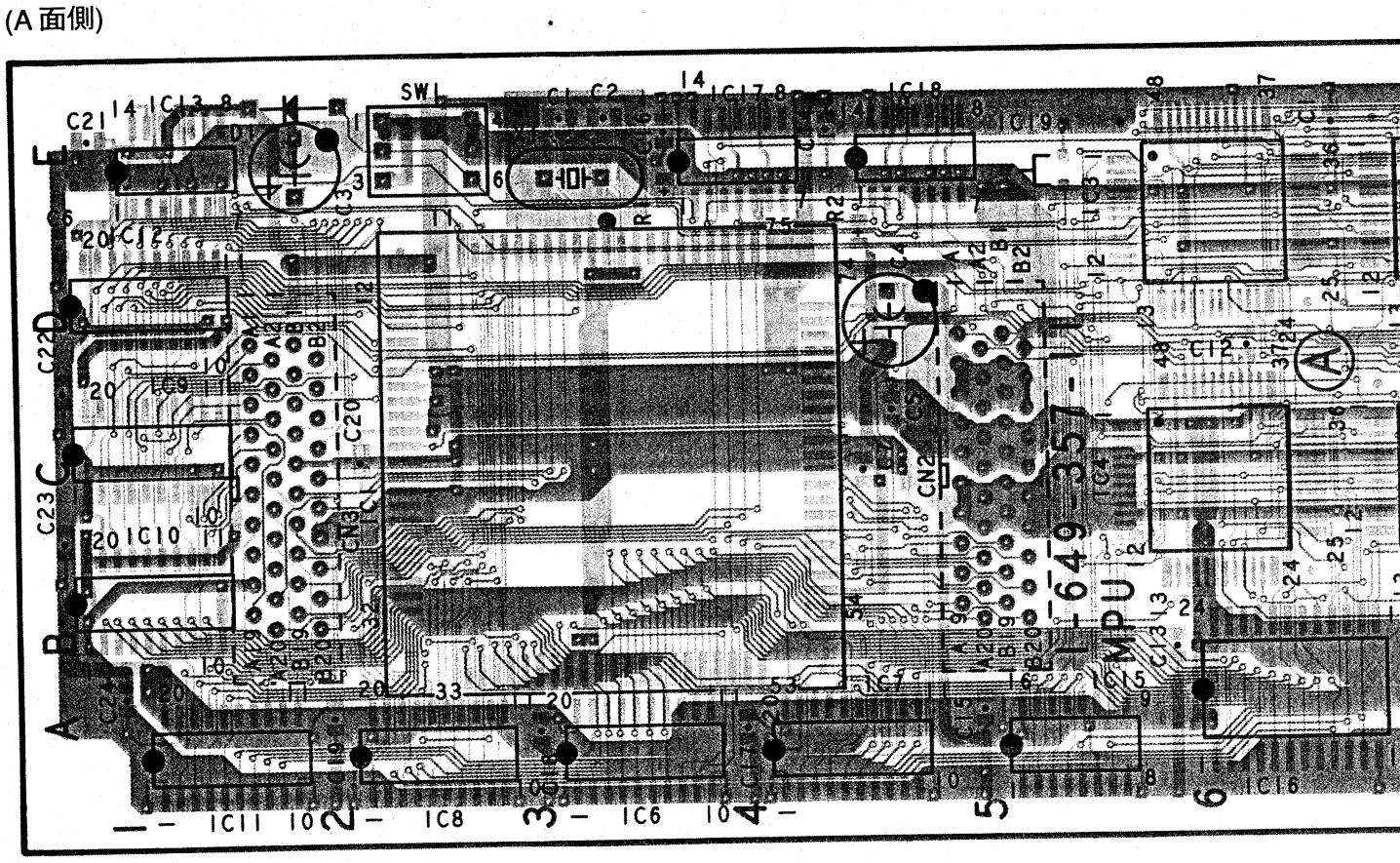
MPU Board–A side
MPU 基板（A 面側）

IC	
IC1	C-2
IC2	E-7
IC3	E-6
IC4	C-6
IC5	C-7
IC6	A-3
IC7	A-4
IC8	A-2
IC9	C-1
IC10	B-1
IC11	A-1
IC12	D-1
IC13	E-1
IC14	A-7
IC15	A-5
IC16	A-6
IC17	E-4
IC18	E-5
IC19	E-5
DIODE	
D1	E-2

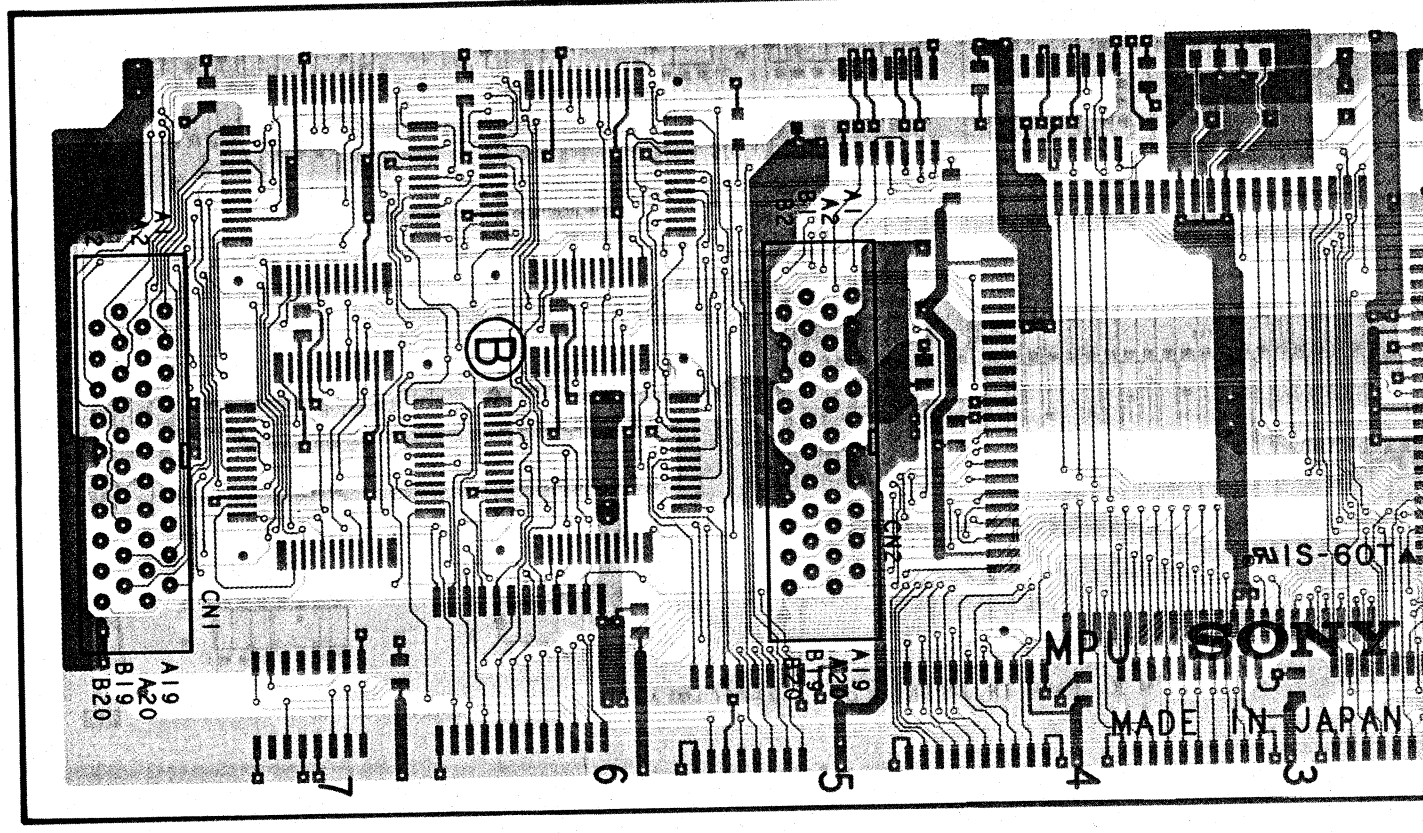
MPU Board–B side
MPU 基板（B 面側）

DIODE	
D1	E-2

(A side)
(A 面側)



(B side)
(B 面側)



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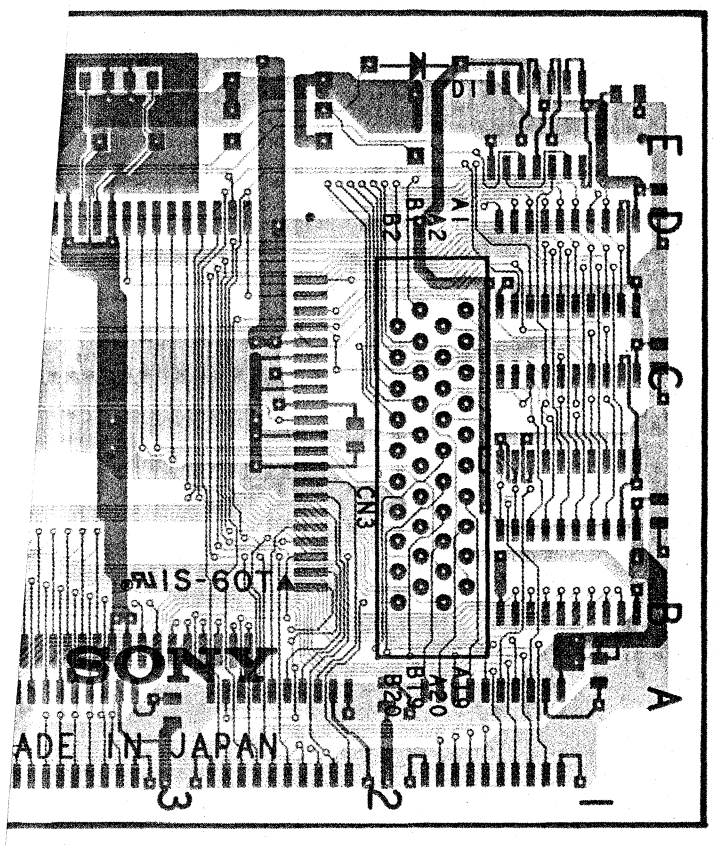
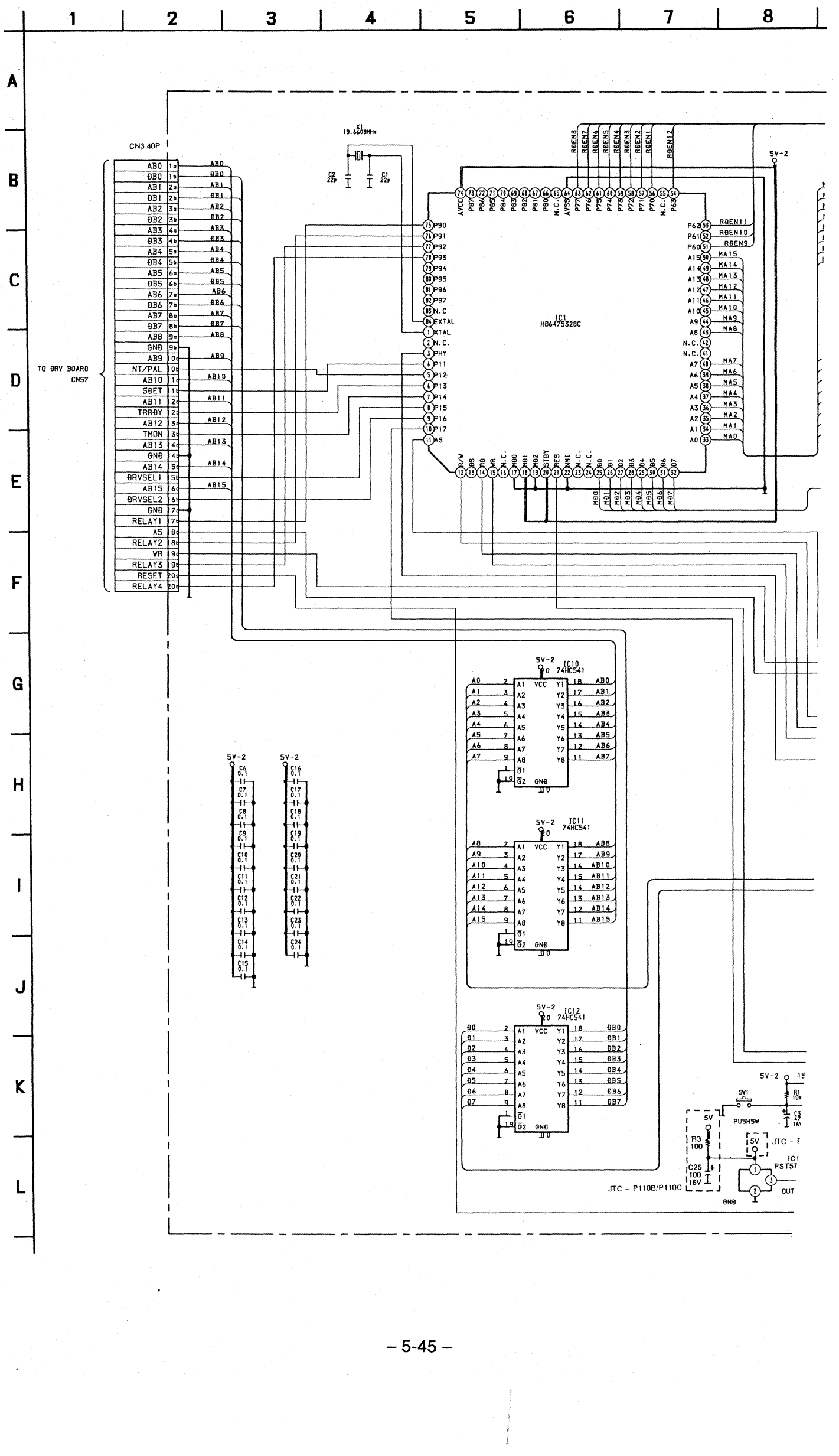
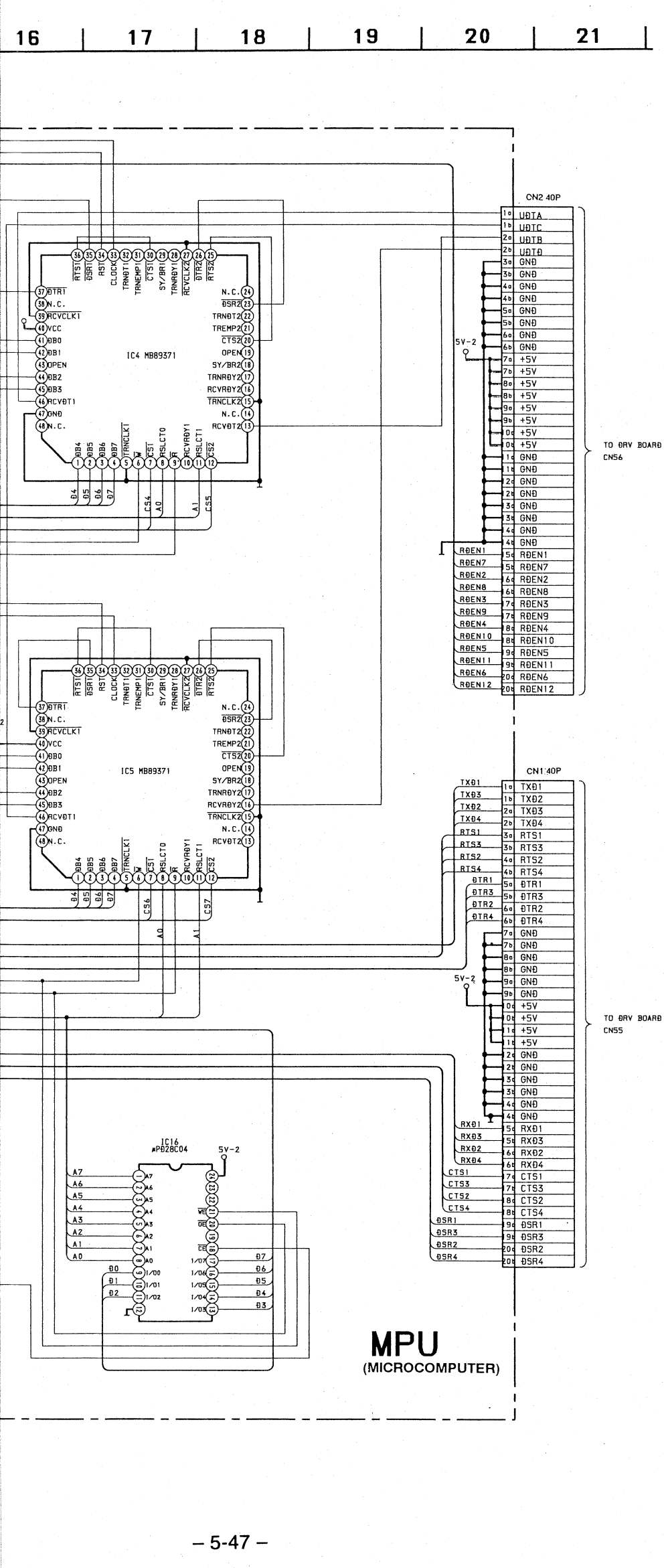
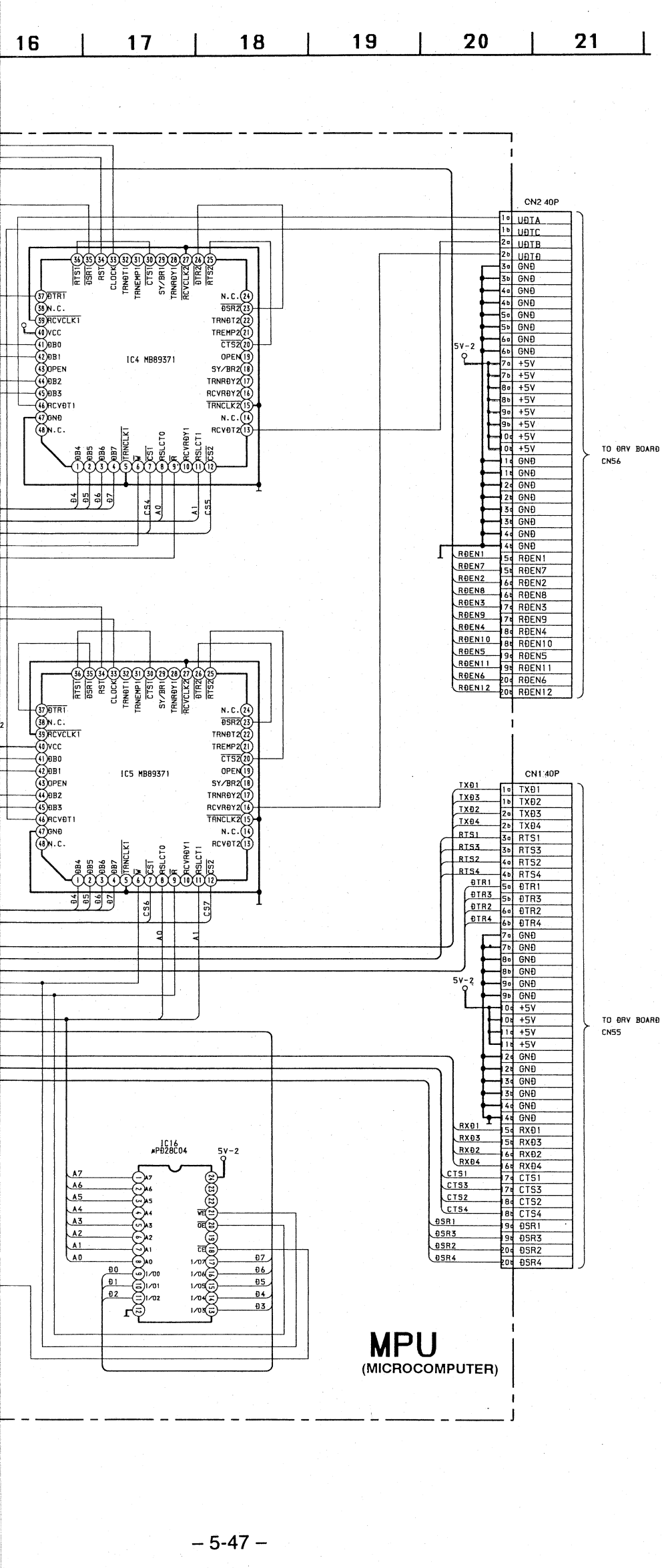
- ▒▒▒▒: Pattern of the rear side.
- ▒▒▒▒: は見た面側のパターン。
- ▒▒▒▒: は裏側のパターン。

SCHEMATIC DIAGRAM – MPU BOARD –
MPU 基板回路図

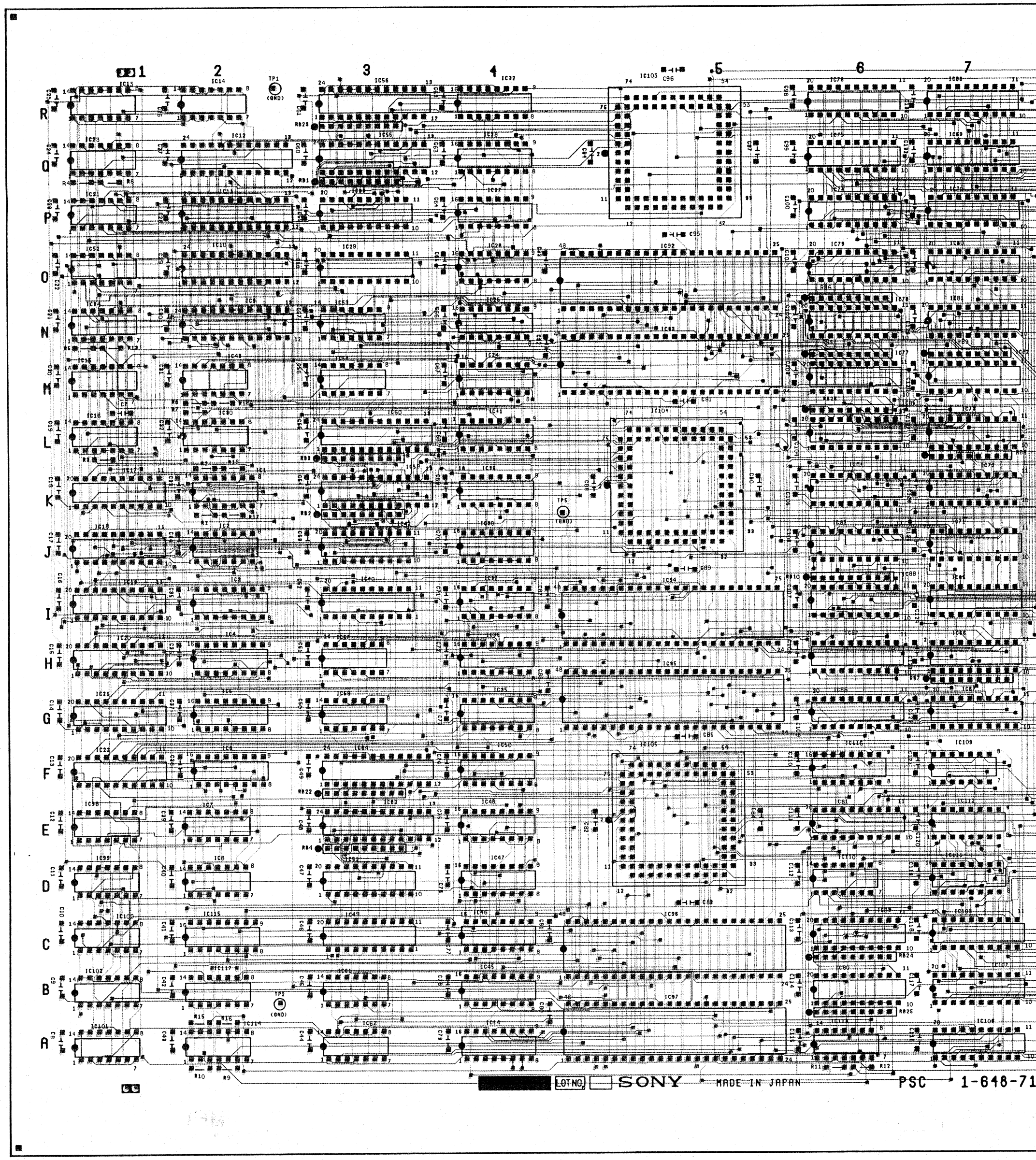




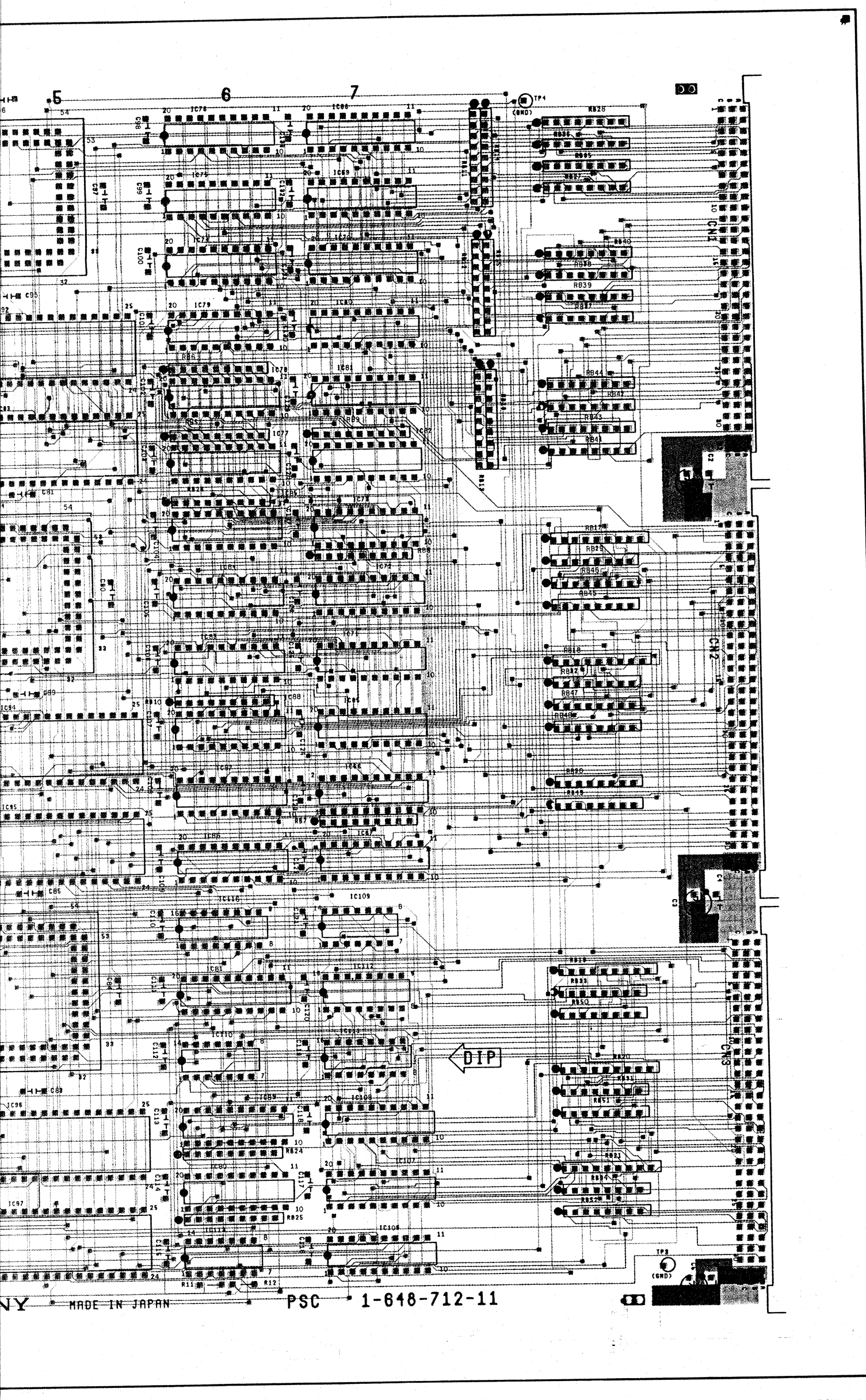

16
17
18
19
20
21
IC4 MB89371
IC5 MB89371
IC16
μPD28C04
5V-2
CN2 40P
CN1 40P
TO ORV BOARD
CN56
TO ORV BOARD
CN55
MPU
(MICROCOMPUTER)

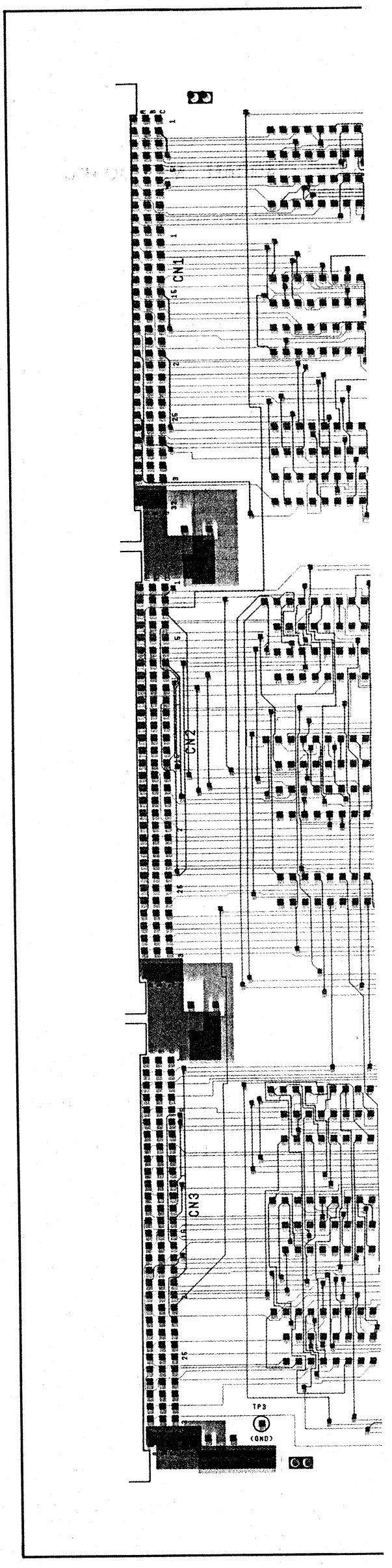

16
17
18
19
20
21
IC4 MB89371
IC5 MB89371
IC16
μPD28C04
5V-2
CN2 40P
CN1 40P
TO 0RV BOAR0
CN56
TO 0RV BOAR0
CN55
MPU
(MICROCOMPUTER)

SCHEMATIC DIAGRAM – PSC BOARD (A side) –
PSC基板プリント図（A面側）

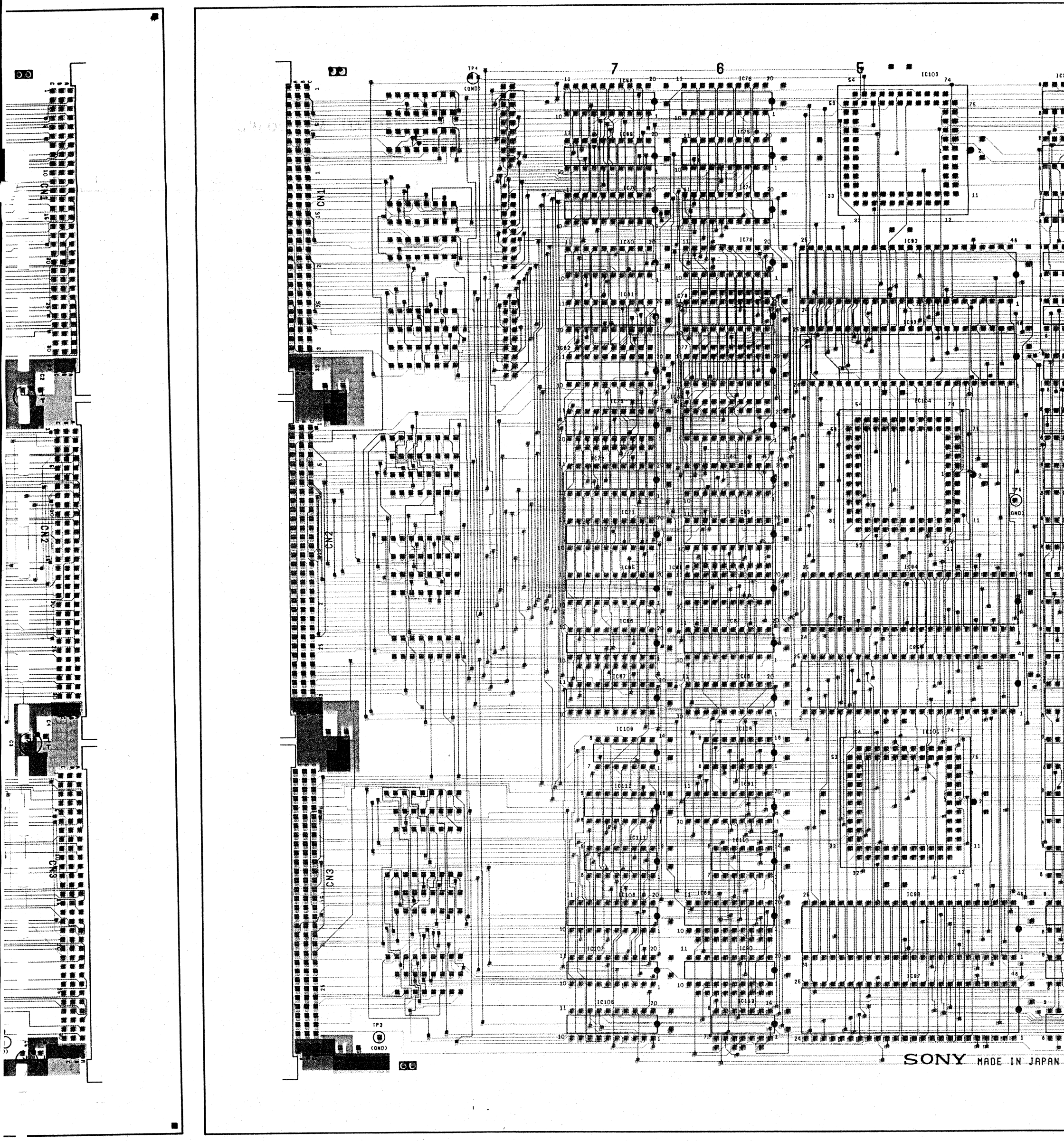


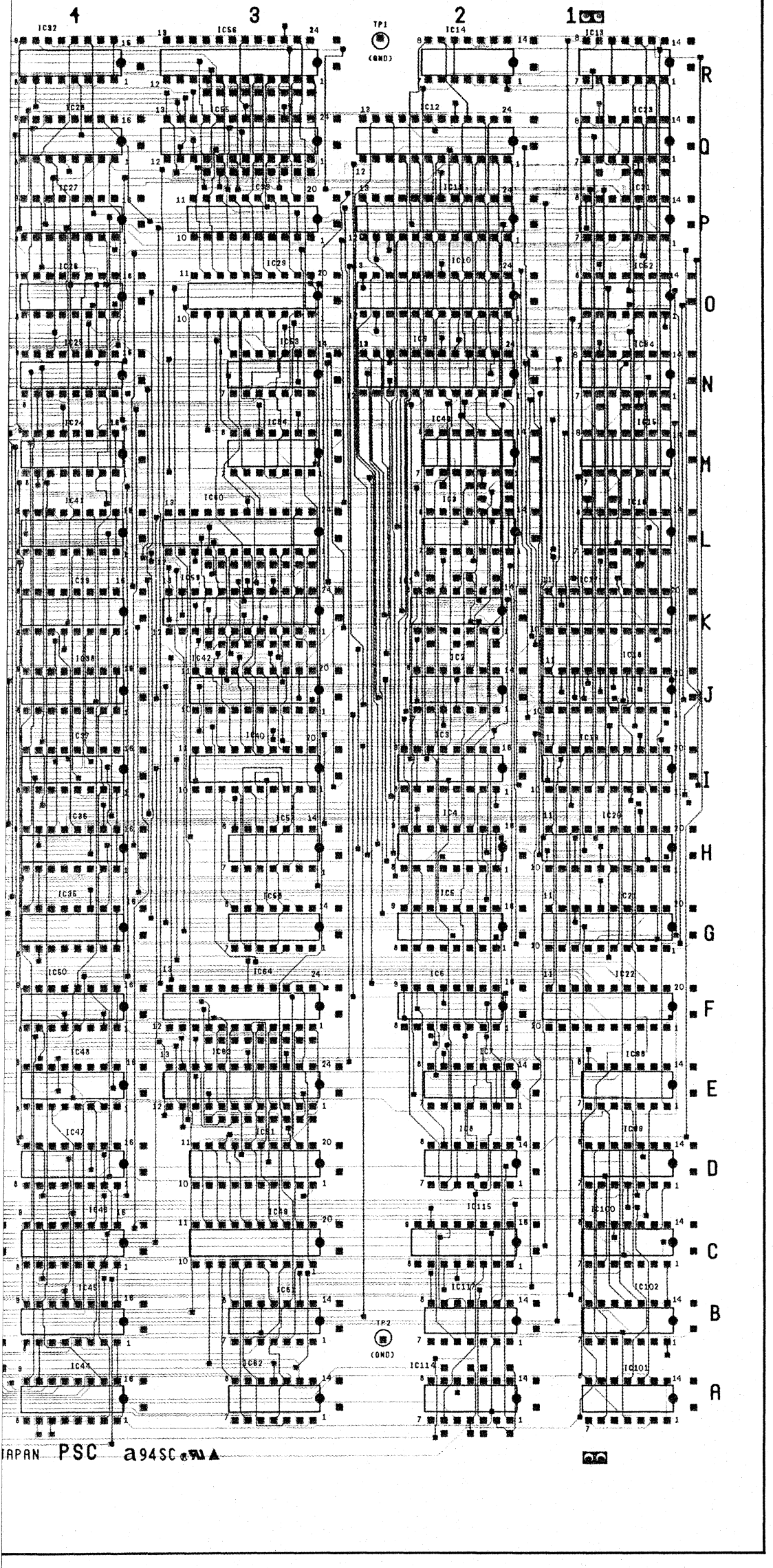
PRINTED WIRING BOARD – PSC BOAI
PSC 基板プリント図 (B面側)





PRINTED WIRING BOARD – PSC BOARD (B side) –
PSC 基板プリント図 (B面側)





PSC Board–A side
PSC 基板（A面側）

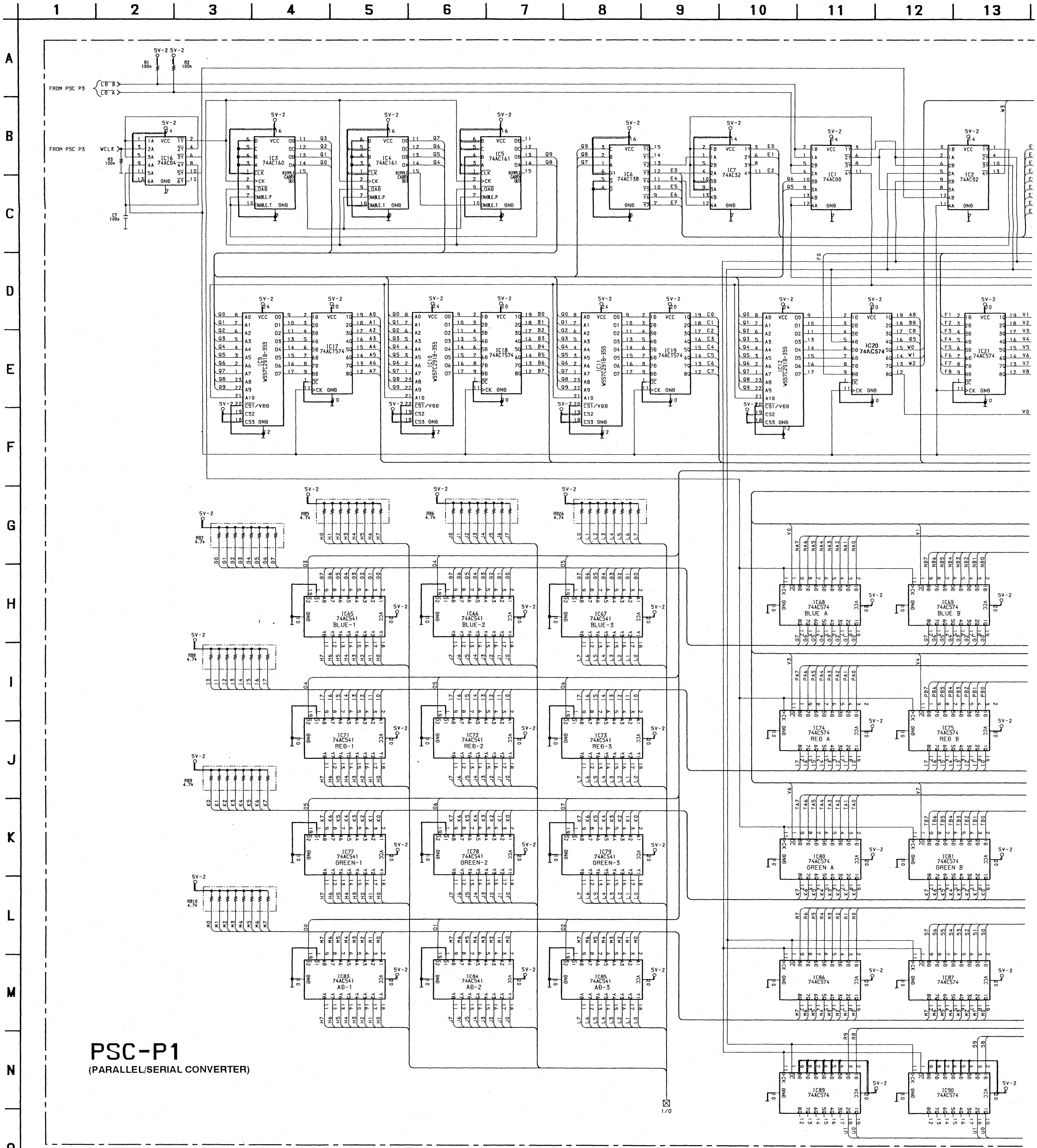
IC		IC		IC	
IC1	K-2	IC41	L-4	IC81	N-7
IC2	J-2	IC42	J-3	IC82	M-7
IC3	I-2	IC43	M-2	IC83	J-6
IC4	H-2	IC44	A-4	IC84	K-6
IC5	G-2	IC45	B-4	IC85	L-6
IC6	F-2	IC46	C-4	IC86	G-6
IC7	E-2	IC47	D-4	IC87	H-6
IC8	D-2	IC48	E-4	IC88	I-6
IC9	N-2	IC49	C-3	IC89	C-6
IC10	O-2	IC50	F-4	IC90	B-6
IC11	P-2	IC51	D-3	IC91	E-6
IC12	Q-2	IC52	O-1	IC92	O-5
IC13	R-1	IC53	N-3	IC93	M-5
IC14	R-2	IC54	M-3	IC94	I-5
IC15	M-1	IC55	Q-3	IC95	G-5
IC16	L-1	IC56	R-3	IC96	C-5
IC17	K-1	IC57	H-3	IC97	A-5
IC18	J-1	IC58	G-3	IC98	E-1
IC19	I-1	IC59	K-3	IC99	D-1
IC20	H-1	IC60	L-3	IC100	C-1
IC21	G-1	IC61	B-3	IC101	A-1
IC22	F-1	IC62	A-3	IC102	B-1
IC23	Q-1	IC63	E-3	IC103	Q-5
IC24	M-4	IC64	F-3	IC104	K-5
IC25	N-4	IC65	I-7	IC105	E-5
IC26	O-4	IC66	H-7	IC106	A-7
IC27	P-4	IC67	G-7	IC107	B-7
IC28	Q-4	IC68	R-7	IC108	C-7
IC29	O-3	IC69	Q-7	IC109	F-7
IC30	L-2	IC70	P-7	IC110	D-6
IC31	P-1	IC71	J-7	IC111	D-7
IC32	R-4	IC72	K-7	IC112	E-7
IC33	P-3	IC73	L-7	IC113	A-6
IC34	N-1	IC74	P-6	IC114	A-2
IC35	G-4	IC75	Q-6	IC115	C-2
IC36	H-4	IC76	R-6	IC116	F-6
IC37	I-4	IC77	M-6	IC117	B-2
IC38	J-4	IC78	N-6		
IC39	K-4	IC79	O-6		
IC40	I-3	IC80	O-7		

PSC Board–B side
PSC 基板（B面側）

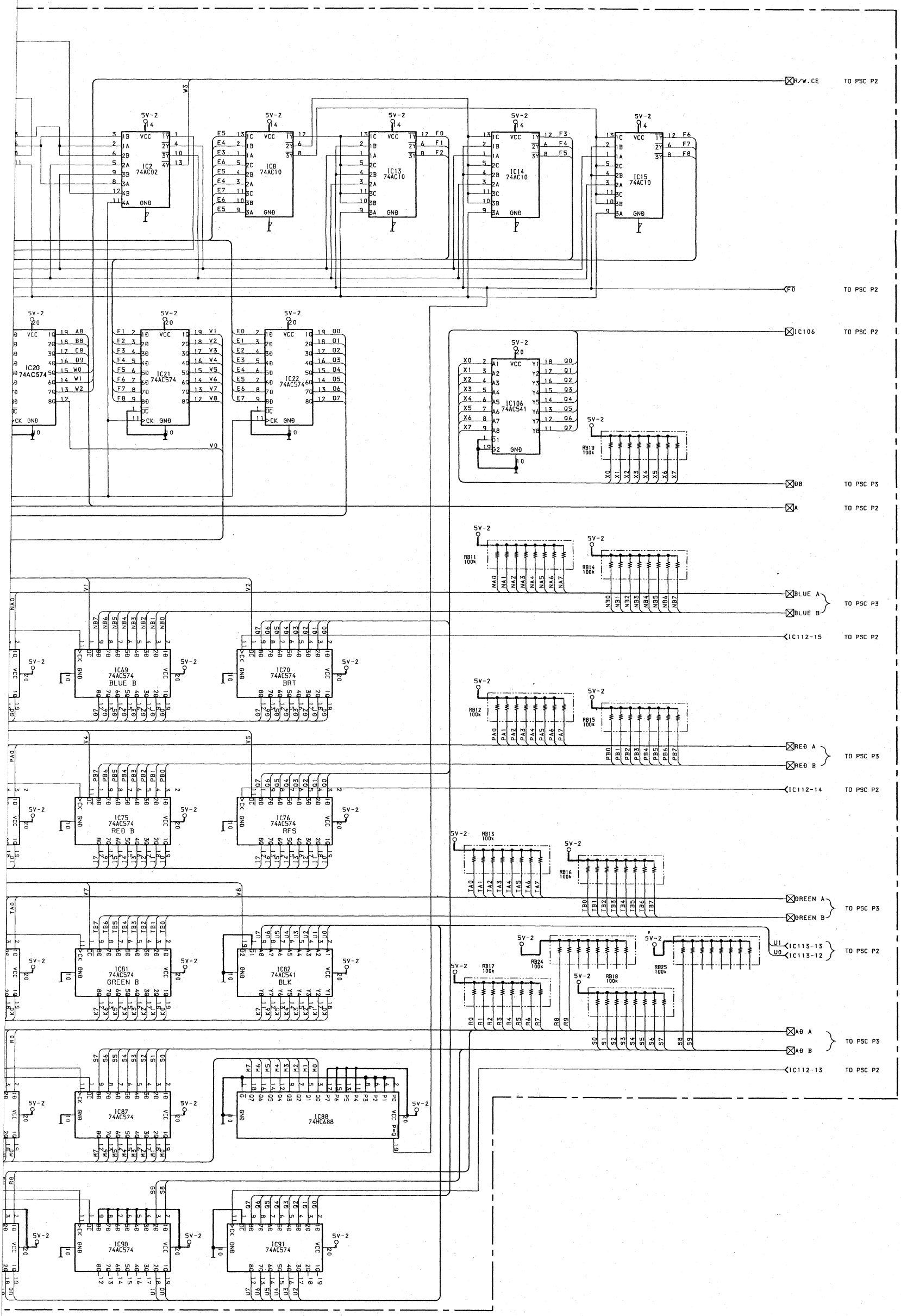
IC		IC		IC	
IC1	K-2	IC41	L-4	IC81	
IC2	J-2	IC42	J-3	IC82	
IC3	I-2	IC43	M-2	IC83	
IC4	H-2	IC44	A-4	IC84	
IC5	G-2	IC45	B-4	IC85	
IC6	F-2	IC46	C-4	IC86	
IC7	E-2	IC47	D-4	IC87	
IC8	D-2	IC48	E-4	IC88	
IC9	N-2	IC49	C-3	IC89	
IC10	O-2	IC50	F-4	IC90	
IC11	P-2	IC51	D-3	IC91	
IC12	Q-2	IC52	O-1	IC92	
IC13	R-1	IC53	N-3	IC93	
IC14	R-2	IC54	M-3	IC94	
IC15	M-1	IC55	Q-3	IC95	
IC16	L-1	IC56	R-3	IC96	
IC17	K-1	IC57	H-3	IC97	
IC18	J-1	IC58	G-3	IC98	
IC19	I-1	IC59	K-3	IC99	
IC20	H-1	IC60	L-3	IC100	
IC21	G-1	IC61		IC101	
IC22	F-1	IC62		IC102	
IC23	Q-1	IC63		IC103	
IC24	M-4	IC64		IC104	
IC25	N-4	IC65		IC105	
IC26	O-4	IC66		IC106	
IC27	P-4	IC67		IC107	
IC28	Q-4	IC68		IC108	
IC29	O-3	IC69		IC109	
IC30	L-2	IC70		IC110	
IC31	P-1	IC71		IC111	
IC32	R-4	IC72		IC112	
IC33	P-3	IC73		IC113	
IC34	N-1	IC74		IC114	
IC35	G-4	IC75		IC115	
IC36	H-4	IC76		IC116	
IC37	I-4	IC77		IC117	
IC38	J-4	IC78			
IC39	K-4	IC79			
IC40	I-3	IC80			

- ▒▒▒: Pattern from the side which enables seeing.
- ▒▒▒: Pattern of the rear side.
- ▒▒▒: は見た面側のパターン。
- ▒▒▒: は裏側のパターン。

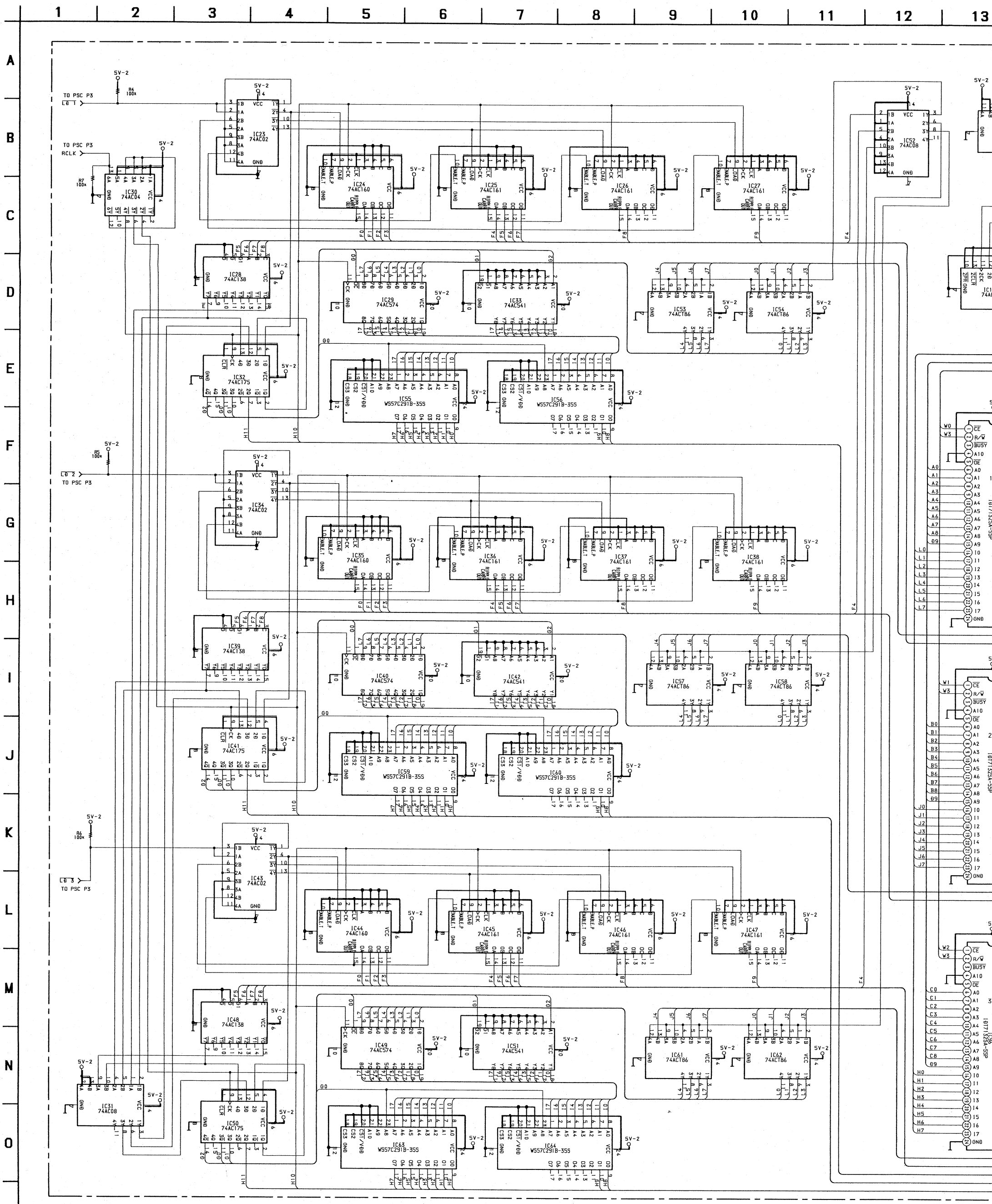
SCHEMATIC DIAGRAM – PSC BOARD (1/3) –
PSC（1/3）基板回路図



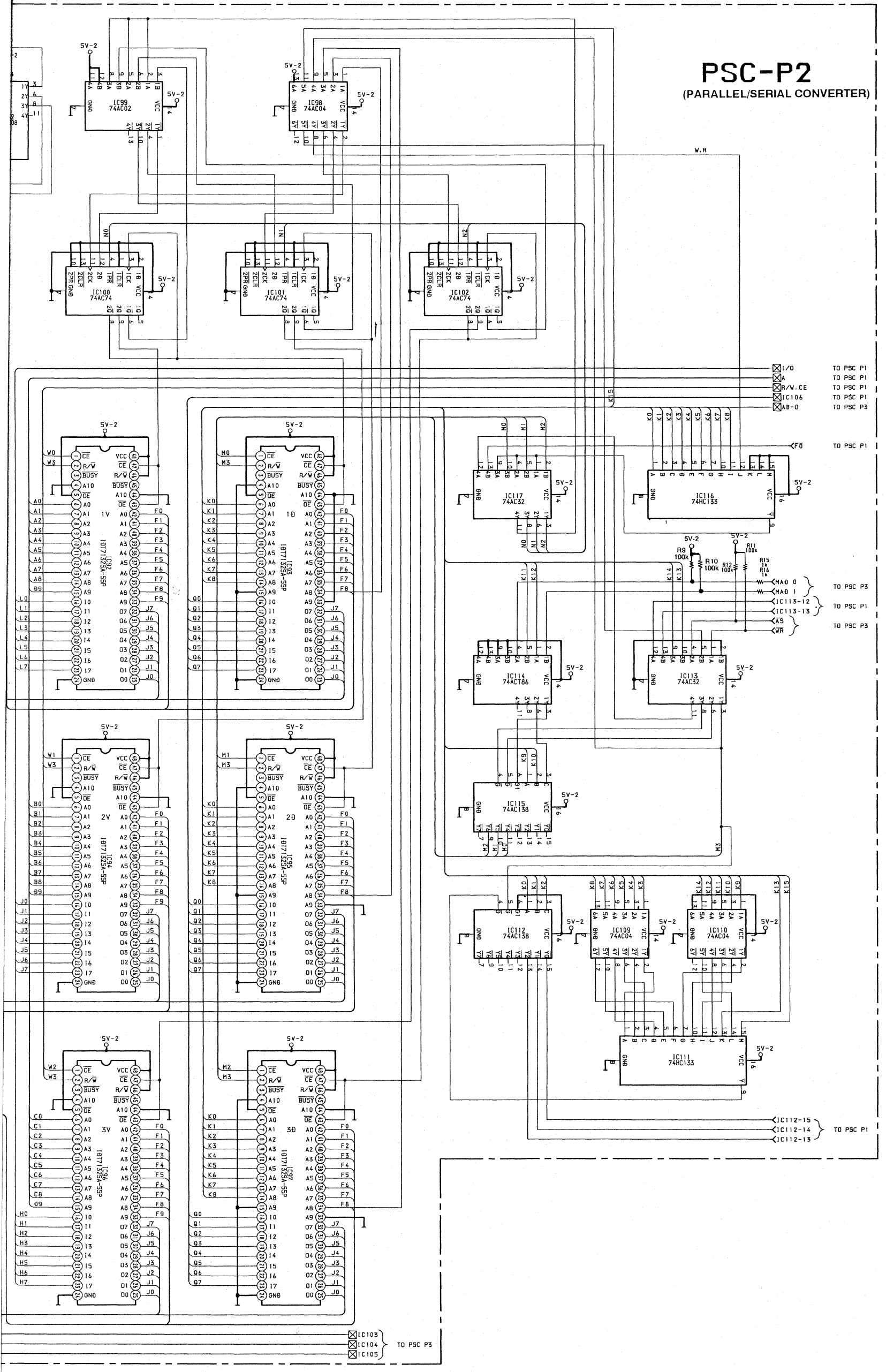
PSC-P1
(PARALLEL/SERIAL CONVERTER)


R/W.CE
TO PSC P2
F0
TO PSC P2
IC106
TO PSC P2
BB
TO PSC P3
A
TO PSC P2
BLUE A
BLUE B
TO PSC P3
IC112-15
TO PSC P2
REØ A
REØ B
TO PSC P3
IC112-14
TO PSC P2
GREEN A
GREEN B
TO PSC P3
U1
U0
IC113-13
IC113-12
TO PSC P2
AØ A
AØ B
TO PSC P3
IC112-13
TO PSC P2
IC2 74AC02
IC8 74AC10
IC13 74AC10
IC14 74AC10
IC15 74AC10
IC20 74AC574
IC21 74AC574
IC22 74AC574
IC106 74AC541
IC69 74AC574 BLUE B
IC70 74AC574 BRT
IC75 74AC574 REØ B
IC76 74AC574 RFS
IC81 74AC574 GREEN B
IC82 74AC541 BLK
IC87 74AC574
IC88 74HC688
IC90 74AC574
IC91 74AC574
5V-2
RB11 100k
RB12 100k
RB13 100k
RB14 100k
RB15 100k
RB16 100k
RB17 100k
RB18 100k
RB19 100k
RB24 100k
RB25 100k

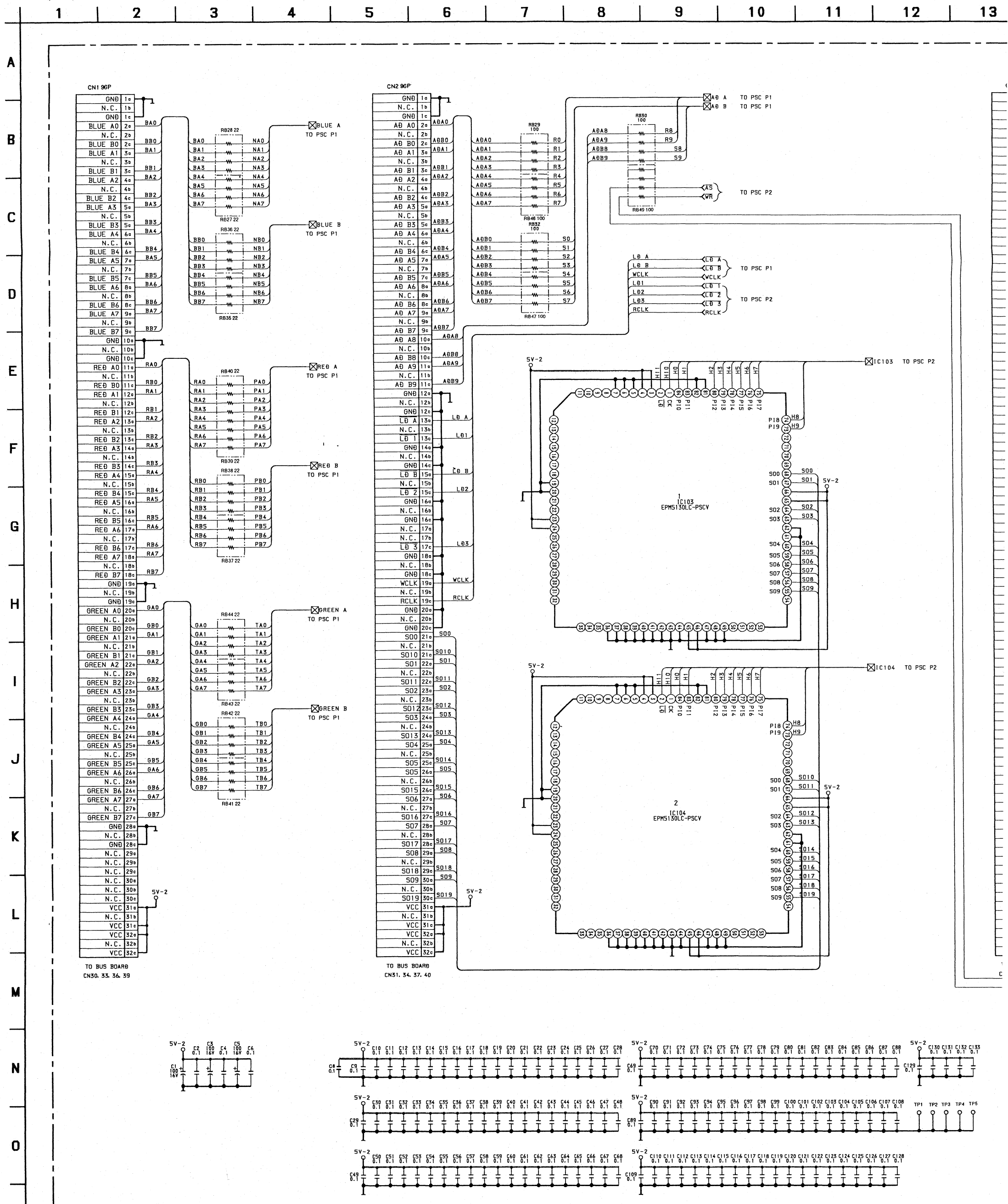
SCHEMATIC DIAGRAM – PSC BOARD (2/3) –
PSC (2/3) 基板回路図

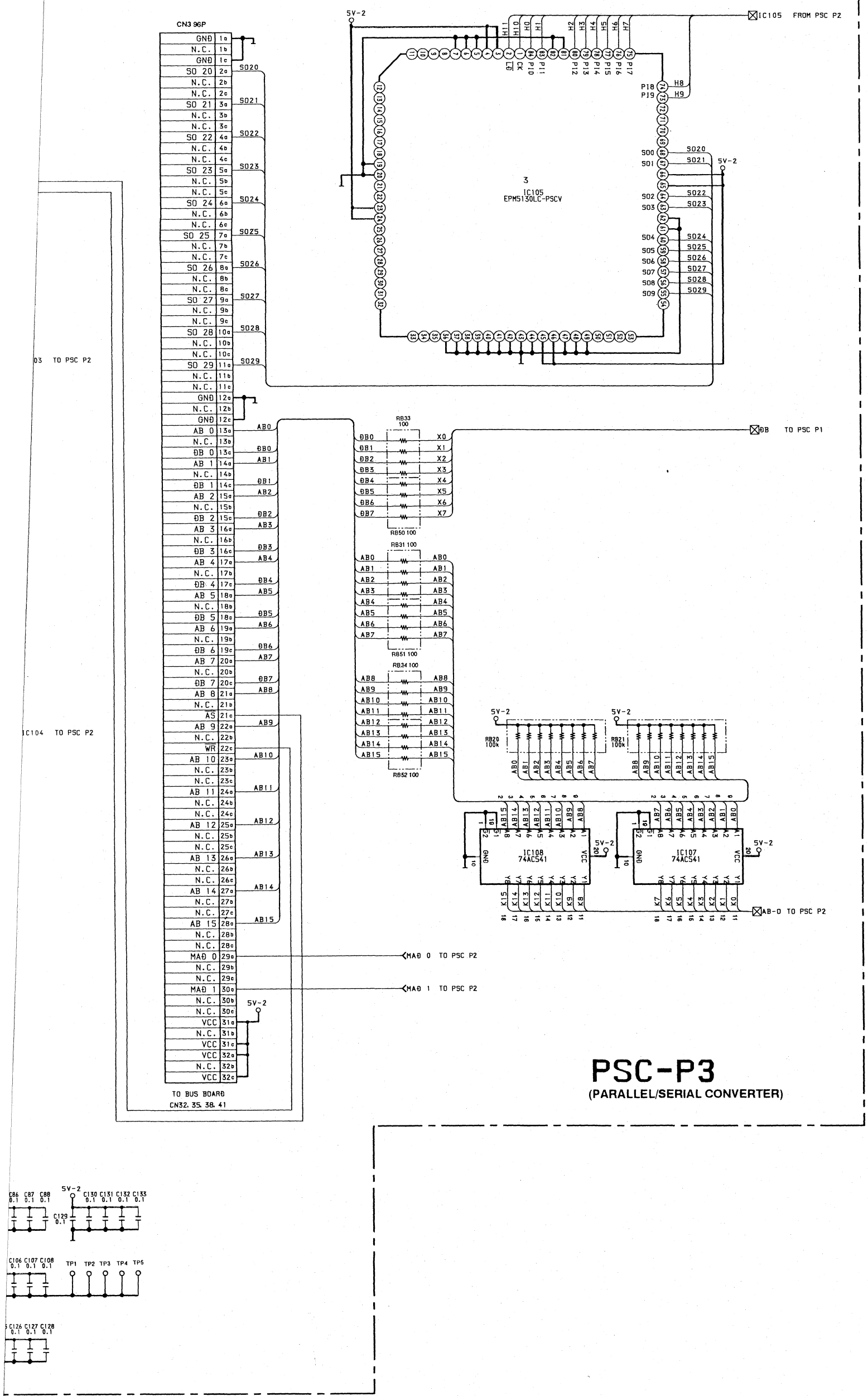


PSC-P2
(PARALLEL/SERIAL CONVERTER)



SCHEMATIC DIAGRAM – PSC BOARD (3/3) –
PSC（3/3）基板回路図

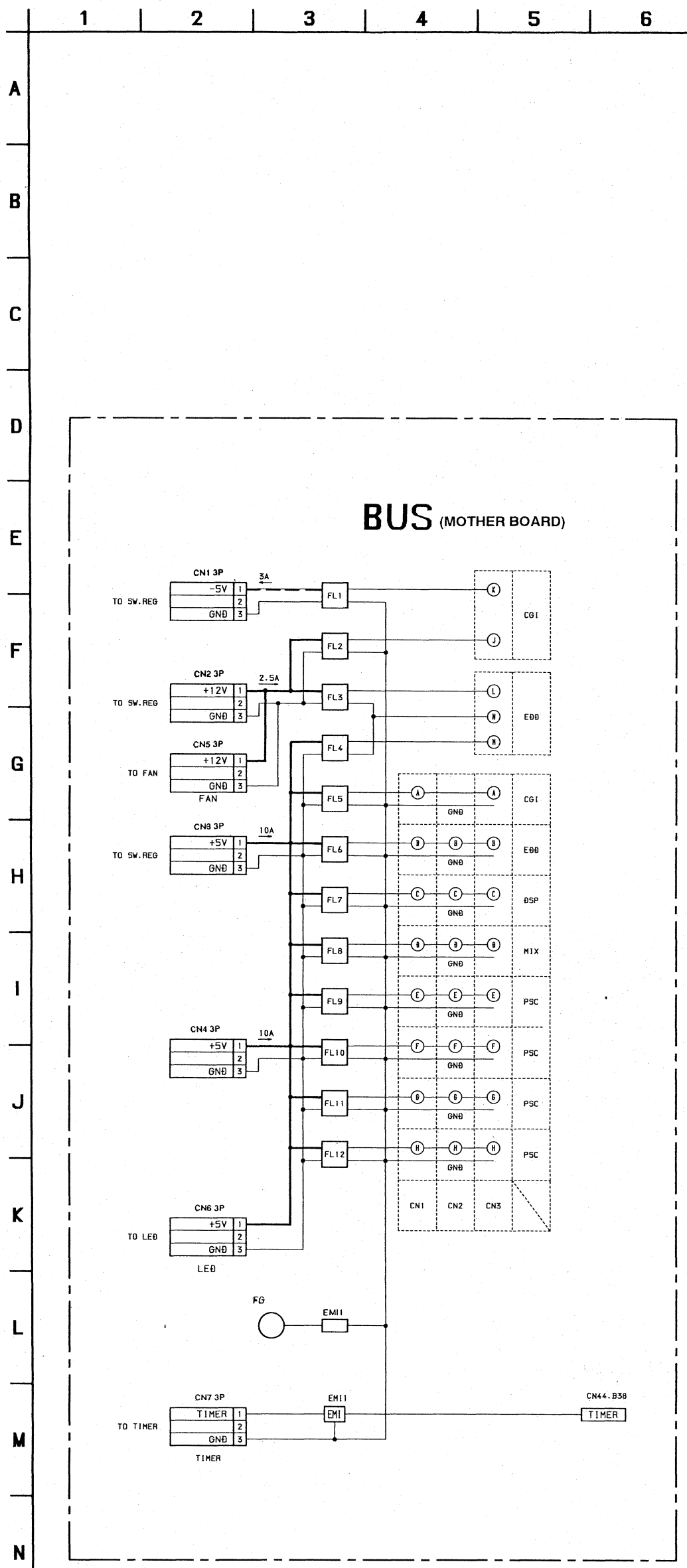


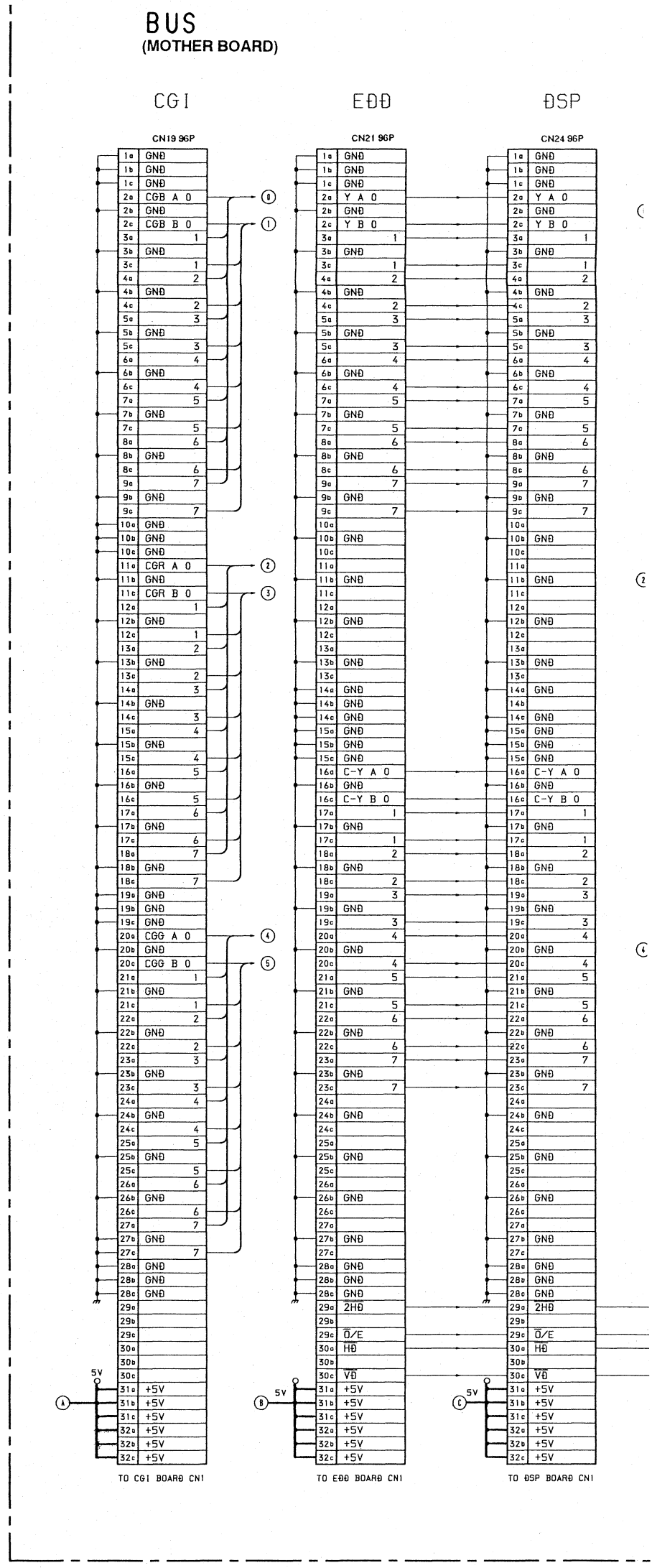


PSC-P3

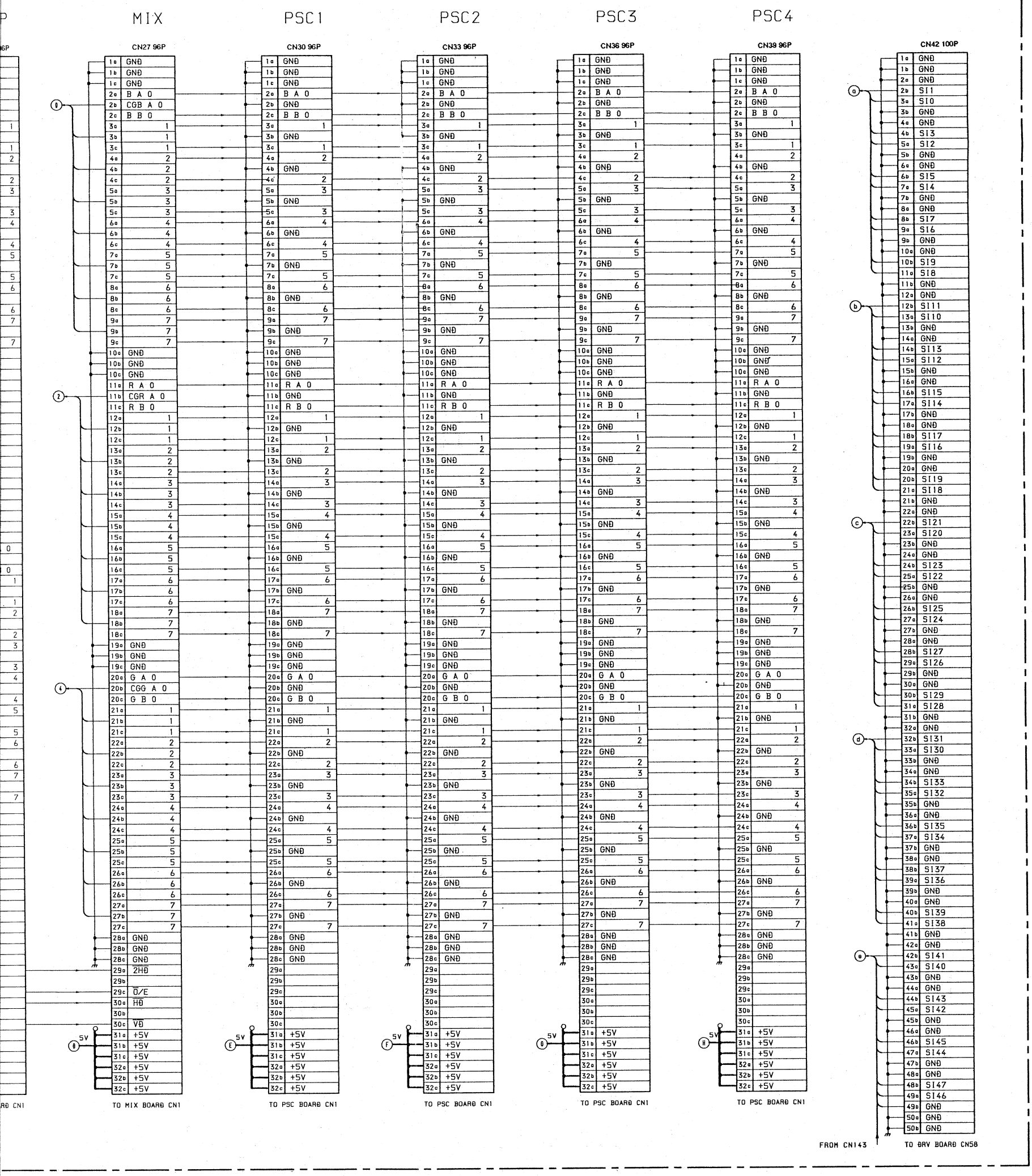
(PARALLEL/SERIAL CONVERTER)

SCHEMATIC DIAGRAM – BUS BOARD (1/3) –
BUS（1/3）基板回路図





CN1


MIX
PSC1
PSC2
PSC3
PSC4
CN27 96P
CN30 96P
CN33 96P
CN36 96P
CN39 96P
CN42 100P
TO MIX BOARD CN1
TO PSC BOARD CN1
TO PSC BOARD CN1
TO PSC BOARD CN1
TO PSC BOARD CN1
FROM CN143
TO DRV BOARD CN58

SCHEMATIC DIAGRAM – BUS BOARD (2/3) –
BUS（2/3）基板回路図

BUS
(MOTHER BOARD)

CN2

EĐĐ

CN22 96P

1a	GNĐ
1b	GNĐ
1c	GNĐ
2a	AĐA 0
2b	GNĐ
2c	AĐB 0
3a	1
3b	GNĐ
3c	1
4a	2
4b	GNĐ
4c	2
5a	3
5b	GNĐ
5c	3
6a	4
6b	GNĐ
6c	4
7a	5
7b	GNĐ
7c	5
8a	6
8b	GNĐ
8c	6
9a	7
9b	GNĐ
9c	7
10a	8
10b	GNĐ
10c	8
11a	9
11b	GNĐ
11c	9
12a	GNĐ
12b	GNĐ
12c	GNĐ
13a	LĐA 0
13b	GNĐ
13c	LĐI 0
14a	LĐB 0
14b	GNĐ
14c	LĐI 0
15a	
15b	GNĐ
15c	LĐI 0
16a	GNĐ
16b	GNĐ
16c	GNĐ
17a	LĐA 1
17b	GNĐ
17c	LĐI 1
18a	LĐB 1
18b	GNĐ
18c	LĐI 1
19a	
19b	GNĐ
19c	LĐI 1
20a	GNĐ
20b	GNĐ
20c	GNĐ
21a	LĐA 2
21b	GNĐ
21c	LĐI 2
22a	LĐB 2
22b	GNĐ
22c	LĐI 2
23a	
23b	GNĐ
23c	LĐI 2
24a	GNĐ
24b	GNĐ
24c	GNĐ
25a	LĐA 3
25b	GNĐ
25c	LĐI 3
26a	LĐB 3
26b	GNĐ
26c	LĐI 3
27a	
27b	GNĐ
27c	LĐI 3
28a	GNĐ
28b	GNĐ
28c	GNĐ
29a	WCLK
29b	GNĐ
29c	RCLK
30a	NCLK
30b	GNĐ
30c	GNĐ
31a	+5V
31b	+5V
31c	+5V
32a	+5V
32b	+5V
32c	+5V

5V (B)

TO EĐĐ BOARĐ CN2

ĐSP

CN25 96P

1a	GNĐ
1b	GNĐ
1c	GNĐ
2a	Y A 0
2b	GNĐ
2c	Y B 0
3a	1
3b	GNĐ
3c	1
4a	2
4b	GNĐ
4c	2
5a	3
5b	GNĐ
5c	3
6a	4
6b	GNĐ
6c	4
7a	5
7b	GNĐ
7c	5
8a	6
8b	GNĐ
8c	6
9a	7
9b	GNĐ
9c	7
10a	8
10b	GNĐ
10c	8
11a	9
11b	GNĐ
11c	9
12a	10
12b	GNĐ
12c	10
13a	11
13b	GNĐ
13c	11
14a	GNĐ
14b	GNĐ
14c	GNĐ
15a	GNĐ
15b	GNĐ
15c	GNĐ
16a	C-Y A 0
16b	GNĐ
16c	C-Y B 0
17a	1
17b	GNĐ
17c	1
18a	2
18b	GNĐ
18c	2
19a	3
19b	GNĐ
19c	3
20a	4
20b	GNĐ
20c	4
21a	5
21b	GNĐ
21c	5
22a	6
22b	GNĐ
22c	6
23a	7
23b	GNĐ
23c	7
24a	8
24b	GNĐ
24c	8
25a	9
25b	GNĐ
25c	9
26a	10
26b	GNĐ
26c	10
27a	11
27b	GNĐ
27c	11
28a	GNĐ
28b	GNĐ
28c	GNĐ
29a	WCLK
29b	GNĐ
29c	RCLK
30a	GNĐ
30b	GNĐ
30c	GNĐ
31a	+5V
31b	+5V
31c	+5V
32a	+5V
32b	+5V
32c	+5V

5V (C)

TO ĐSP BOARĐ CN2

MIX

CN28 96P

1a	GNĐ
1b	GNĐ
1c	GNĐ
2a	Y A 0
2b	CGBB0
2c	Y B 0
3a	1
3b	1
3c	1
4a	2
4b	2
4c	2
5a	3
5b	3
5c	3
6a	4
6b	4
6c	4
7a	5
7b	5
7c	5
8a	6
8b	6
8c	6
9a	7
9b	7
9c	7
10a	8
10b	GNĐ
10c	8
11a	9
11b	CGR B 0
11c	9
12a	10
12b	11
12c	2
13a	11
13b	2
13c	11
14a	GNĐ
14b	3
14c	GNĐ
15a	GNĐ
15b	4
15c	GNĐ
16a	C-Y A 0
16b	5
16c	C-Y B 0
17a	1
17b	6
17c	1
18a	2
18b	7
18c	2
19a	3
19b	GNĐ
19c	3
20a	4
20b	CGG B 0
20c	4
21a	5
21b	1
21c	5
22a	6
22b	2
22c	6
23a	7
23b	3
23c	7
24a	8
24b	4
24c	8
25a	9
25b	5
25c	9
26a	10
26b	6
26c	10
27a	11
27b	7
27c	11
28a	GNĐ
28b	GNĐ
28c	GNĐ
29a	WCLK
29b	NCLK
29c	RCLK
30a	GNĐ
30b	GNĐ
30c	GNĐ
31a	+5V
31b	+5V
31c	+5V
32a	+5V
32b	+5V
32c	+5V

5V (D)

TO MIX BOARĐ CN2

PSC1

CN31 96P

1a	GNĐ
1b	GNĐ
1c	GNĐ
2a	AĐ A 0
2b	GNĐ
2c	AĐ B 0
3a	
3b	GNĐ
3c	
4a	
4b	GNĐ
4c	
5a	
5b	GNĐ
5c	
6a	
6b	GNĐ
6c	
7a	
7b	GNĐ
7c	
8a	
8b	GNĐ
8c	
9a	
9b	GNĐ
9c	
10a	
10b	GNĐ
10c	
11a	
11b	GNĐ
11c	
12a	GNĐ
12b	GNĐ
12c	GNĐ
13a	LĐA 0
13b	GNĐ
13c	LĐI 0
14a	GNĐ
14b	GNĐ
14c	GNĐ
15a	LĐB 0
15b	GNĐ
15c	LĐI 0
16a	GNĐ
16b	GNĐ
16c	GNĐ
17a	
17b	GNĐ
17c	LĐI 0
18a	GNĐ
18b	GNĐ
18c	GNĐ
19a	WCLK
19b	GNĐ
19c	RCLK
20a	GNĐ
20b	GNĐ
20c	GNĐ
21a	SO 0
21b	GNĐ
21c	SO 10
22a	1
22b	GNĐ
22c	11
23a	2
23b	GNĐ
23c	12
24a	3
24b	GNĐ
24c	13
25a	4
25b	GNĐ
25c	14
26a	5
26b	GNĐ
26c	15
27a	6
27b	GNĐ
27c	16
28a	7
28b	GNĐ
28c	17
29a	8
29b	GNĐ
29c	18
30a	9
30b	GNĐ
30c	19
31a	+5V
31b	+5V
31c	+5V
32a	+5V
32b	+5V
32c	+5V

(a) (b) (E)

TO PSC BOARĐ CN2

PSC2

CN34 96P

1a	GNĐ
1b	GNĐ
1c	GNĐ
2a	AĐ A 0
2b	GNĐ
2c	AĐ B 0
3a	
3b	GNĐ
3c	
4a	
4b	GNĐ
4c	
5a	
5b	GNĐ
5c	
6a	
6b	GNĐ
6c	
7a	
7b	GNĐ
7c	
8a	
8b	GNĐ
8c	
9a	
9b	GNĐ
9c	
10a	
10b	GNĐ
10c	
11a	
11b	GNĐ
11c	
12a	GNĐ
12b	GNĐ
12c	GNĐ
13a	LĐA 0
13b	GNĐ
13c	LĐI 0
14a	GNĐ
14b	GNĐ
14c	GNĐ
15a	LĐB 0
15b	GNĐ
15c	LĐI 0
16a	GNĐ
16b	GNĐ
16c	GNĐ
17a	
17b	GNĐ
17c	LĐI 0
18a	GNĐ
18b	GNĐ
18c	GNĐ
19a	WCLK
19b	GNĐ
19c	RCLK
20a	GNĐ
20b	GNĐ
20c	GNĐ
21a	SO 30
21b	GNĐ
21c	SO 40
22a	31
22b	GNĐ
22c	41
23a	32
23b	GNĐ
23c	42
24a	33
24b	GNĐ
24c	43
25a	34
25b	GNĐ
25c	44
26a	35
26b	GNĐ
26c	45
27a	36
27b	GNĐ
27c	46
28a	37
28b	GNĐ
28c	47
29a	38
29b	GNĐ
29c	48
30a	39
30b	GNĐ
30c	49
31a	+5V
31b	+5V
31c	+5V
32a	+5V
32b	+5V
32c	+5V

(d) (a) (F)

TO PSC BOARĐ CN2

PSC3

CN37 96P

1a	GNĐ
1b	GNĐ
1c	GNĐ
2a	AĐ A 0
2b	GNĐ
2c	AĐ B 0
3a	
3b	GNĐ
3c	
4a	
4b	GNĐ
4c	
5a	
5b	GNĐ
5c	
6a	
6b	GNĐ
6c	
7a	
7b	GNĐ
7c	
8a	
8b	GNĐ
8c	
9a	
9b	GNĐ
9c	
10a	
10b	GNĐ
10c	
11a	
11b	GNĐ
11c	
12a	GNĐ
12b	GNĐ
12c	GNĐ
13a	LĐA 0
13b	GNĐ
13c	LĐI 0
14a	GNĐ
14b	GNĐ
14c	GNĐ
15a	LĐB 0
15b	GNĐ
15c	LĐI 0
16a	GNĐ
16b	GNĐ
16c	GNĐ
17a	
17b	GNĐ
17c	LĐI 0
18a	GNĐ
18b	GNĐ
18c	GNĐ
19a	WCLK
19b	GNĐ
19c	RCLK
20a	GNĐ
20b	GNĐ
20c	GNĐ
21a	SO 60
21b	GNĐ
21c	SO 70
22a	61
22b	GNĐ
22c	71
23a	62
23b	GNĐ
23c	72
24a	63
24b	GNĐ
24c	73
25a	64
25b	GNĐ
25c	74
26a	65
26b	GNĐ
26c	75
27a	66
27b	GNĐ
27c	76
28a	67
28b	GNĐ
28c	77
29a	68
29b	GNĐ
29c	78
30a	69
30b	GNĐ
30c	79
31a	+5V
31b	+5V
31c	+5V
32a	+5V
32b	+5V
32c	+5V

(g) (h) (G)

TO PSC BOARĐ CN2

PSC4

CN40 96P

1a	GNĐ
1b	GNĐ
1c	GNĐ
2a	AĐ A 0
2b	GNĐ
2c	AĐ B 0
3a	
3b	GNĐ
3c	
4a	
4b	GNĐ
4c	
5a	
5b	GNĐ
5c	
6a	
6b	GNĐ
6c	
7a	
7b	GNĐ
7c	
8a	
8b	GNĐ
8c	
9a	
9b	GNĐ
9c	
10a	
10b	GNĐ
10c	
11a	
11b	GNĐ
11c	
12a	GNĐ
12b	GNĐ
12c	GNĐ
13a	LĐA 0
13b	GNĐ
13c	LĐI 0
14a	GNĐ
14b	GNĐ
14c	GNĐ
15a	LĐB 0
15b	GNĐ
15c	LĐI 0
16a	GNĐ
16b	GNĐ
16c	GNĐ
17a	
17b	GNĐ
17c	LĐI 0
18a	GNĐ
18b	GNĐ
18c	GNĐ
19a	WCLK
19b	GNĐ
19c	RCLK
20a	GNĐ
20b	GNĐ
20c	GNĐ
21a	SO 90
21b	GNĐ
21c	SO 100
22a	91
22b	GNĐ
22c	101
23a	92
23b	GNĐ
23c	102
24a	93
24b	GNĐ
24c	103
25a	94
25b	GNĐ
25c	104
26a	95
26b	GNĐ
26c	105
27a	96
27b	GNĐ
27c	106
28a	97
28b	GNĐ
28c	107
29a	98
29b	GNĐ
29c	108
30a	99
30b	GNĐ
30c	109
31a	+5V
31b	+5V
31c	+5V
32a	+5V
32b	+5V
32c	+5V

(H)

TO PSC BOARĐ CN2

12 | 13 | 14 | 15

PSC4

CN42^

CN40 96P

1a	GND
1b	GND
1c	GND
2a	AD A 0
2b	GND
2c	AD B 0
3a	
3b	GND
3c	
4a	
4b	GND
4c	
5a	
5b	GND
5c	
6a	
6b	GND
6c	
7a	
7b	GND
7c	
8a	
8b	GND
8c	
9a	
9b	GND
9c	
10a	
10b	GND
10c	
11a	
11b	GND
11c	
12a	GND
12b	GND
12c	GND
13a	$\overline{\text{LDA}}$ 0
13b	GND
13c	$\overline{\text{LDI}}$ 0
14a	GND
14b	GND
14c	GND
15a	$\overline{\text{LDB}}$ 0
15b	GND
15c	$\overline{\text{LDI}}$ 0
16a	GND
16b	GND
16c	GND
17a	
17b	GND
17c	$\overline{\text{LDII}}$ 0
18a	GND
18b	GND
18c	GND
19a	WCLK
19b	GND
19c	RCLK
20a	GND
20b	GND
20c	GND
21a	SO 90
21b	GND
21c	SO 100
22a	91
22b	GND
22c	101
23a	92
23b	GND
23c	102
24a	93
24b	GND
24c	103
25a	94
25b	GND
25c	104
26a	95
26b	GND
26c	105
27a	96
27b	GND
27c	106
28a	97
28b	GND
28c	107
29a	98
29b	GND
29c	108
30a	99
30b	GND
30c	109
31a	+5V
31b	+5V
31c	+5V
32a	+5V
32b	+5V
32c	+5V

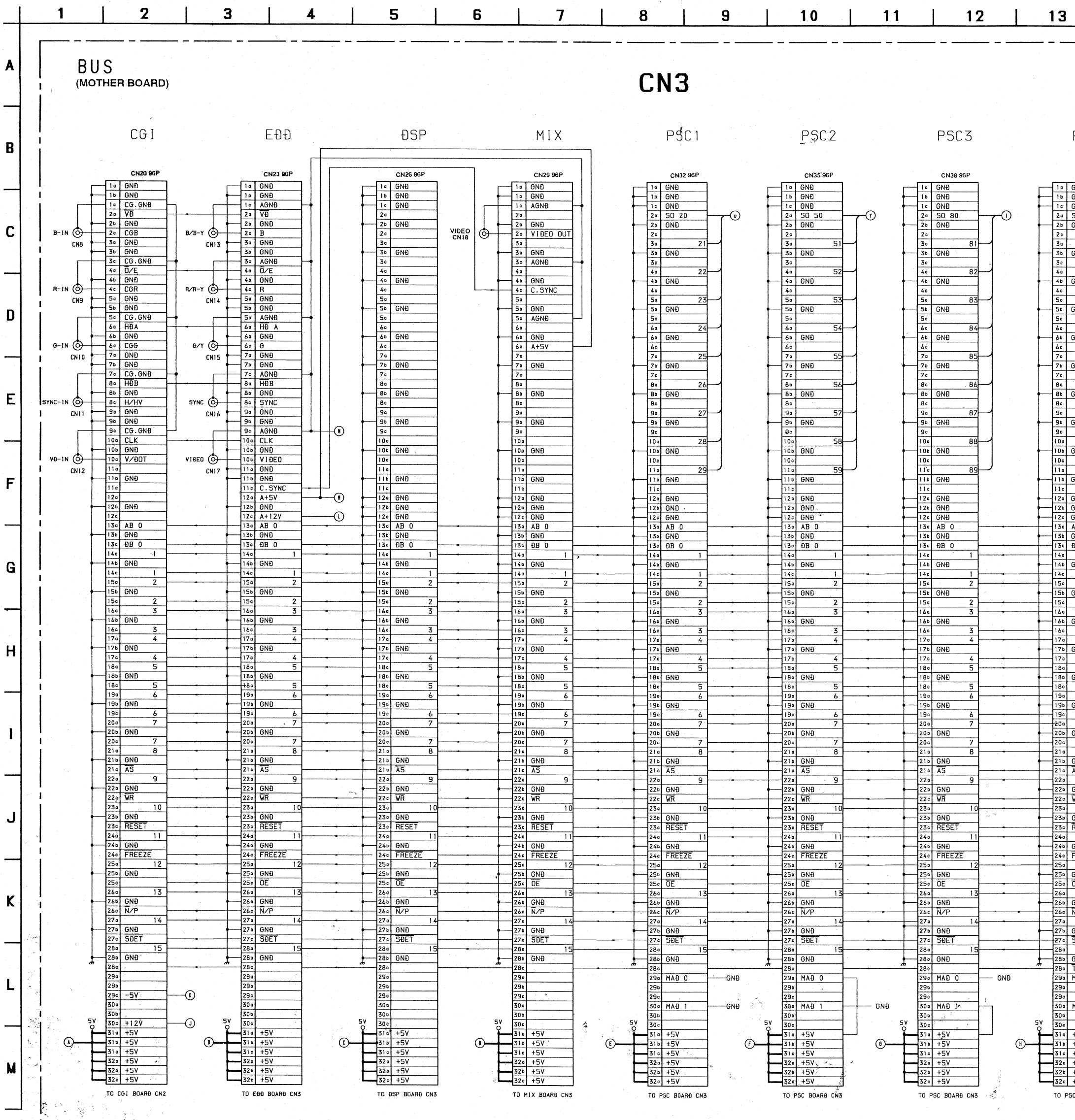
TO PSC BOARD CN2

CN43 100P

1a	GND
1b	GND
2a	GND
2b	S149
3a	S148
3b	GND
4a	GND
(f) 4b	S151
5a	S150
5b	GND
6a	GND
6b	S153
7a	S152
7b	GND
8a	GND
8b	S155
9a	S154
9b	GND
10a	GND
10b	S157
11a	S156
11b	GND
12a	GND
12b	S159
13a	S158
13b	GND
14a	GND
(g) 14b	S161
15a	S160
15b	GND
16a	GND
16b	S163
17a	S162
17b	GND
18a	GND
18b	S165
19a	S164
19b	GND
20a	GND
20b	S167
21a	S166
21b	GND
22a	GND
22b	S169
23a	S168
23b	GND
24a	GND
(h) 24b	S171
25a	S170
25b	GND
26a	GND
26b	S173
27a	S172
27b	GND
28a	GND
28b	S175
29a	S174
29b	GND
30a	GND
30b	S177
31a	S176
31b	GND
32a	GND
32b	S179
33a	S178
33b	GND
34a	GND
(i) 34b	S181
35a	S180
35b	GND
36a	GND
36b	S183
37a	S182
37b	GND
38a	GND
38b	S185
39a	S184
39b	GND
40a	GND
40b	S187
41a	S186
41b	GND
42a	GND
42b	S189
43a	S188
43b	GND
44a	GND
44b	S191
45a	S190
45b	GND
46a	GND
46b	S193
47a	S192
47b	GND
48a	GND
48b	S195
49a	S194
49b	GND
50a	GND
50b	GND

TO DRV BOARD CN59

SCHEMATIC DIAGRAM – BUS BOARD (3/3) –
BUS（3/3）基板回路図



13 | 14 | 15 | 16

PSC4 ÐRV

CN41 96P

1a	GNÐ
1b	GNÐ
1c	GNÐ
2a	SO 110
2b	GNÐ
2c	
3a	111
3b	GNÐ
3c	
4a	112
4b	GNÐ
4c	
5a	113
5b	GNÐ
5c	
6a	114
6b	GNÐ
6c	
7a	115
7b	GNÐ
7c	
8a	116
8b	GNÐ
8c	
9a	117
9b	GNÐ
9c	
10a	118
10b	GNÐ
10c	
11a	119
11b	GNÐ
11c	
12a	GNÐ
12b	GNÐ
12c	GNÐ
13a	AB 0
13b	GNÐ
13c	ÐB 0
14a	1
14b	GNÐ
14c	1
15a	2
15b	GNÐ
15c	2
16a	3
16b	GNÐ
16c	3
17a	4
17b	GNÐ
17c	4
18a	5
18b	GNÐ
18c	5
19a	6
19b	GNÐ
19c	6
20a	7
20b	GNÐ
20c	7
21a	8
21b	GNÐ
21c	$\overline{AS}$
22a	9
22b	GNÐ
22c	$\overline{WR}$
23a	10
23b	GNÐ
23c	$\overline{RESET}$
24a	11
24b	GNÐ
24c	$\overline{FREEZE}$
25a	12
25b	GNÐ
25c	$\overline{OE}$
26a	13
26b	GNÐ
26c	$\overline{N/P}$
27a	14
27b	GNÐ
27c	$\overline{SÐET}$
28a	15
28b	GNÐ
28c	$\overline{TRRÐY}$
29a	MAÐ 0
29b	
29c	
30a	MAÐ 1
30b	
30c	
31a	+5V
31b	+5V
31c	+5V
32a	+5V
32b	+5V
32c	+5V

TO PSC BOARÐ CN3

5V

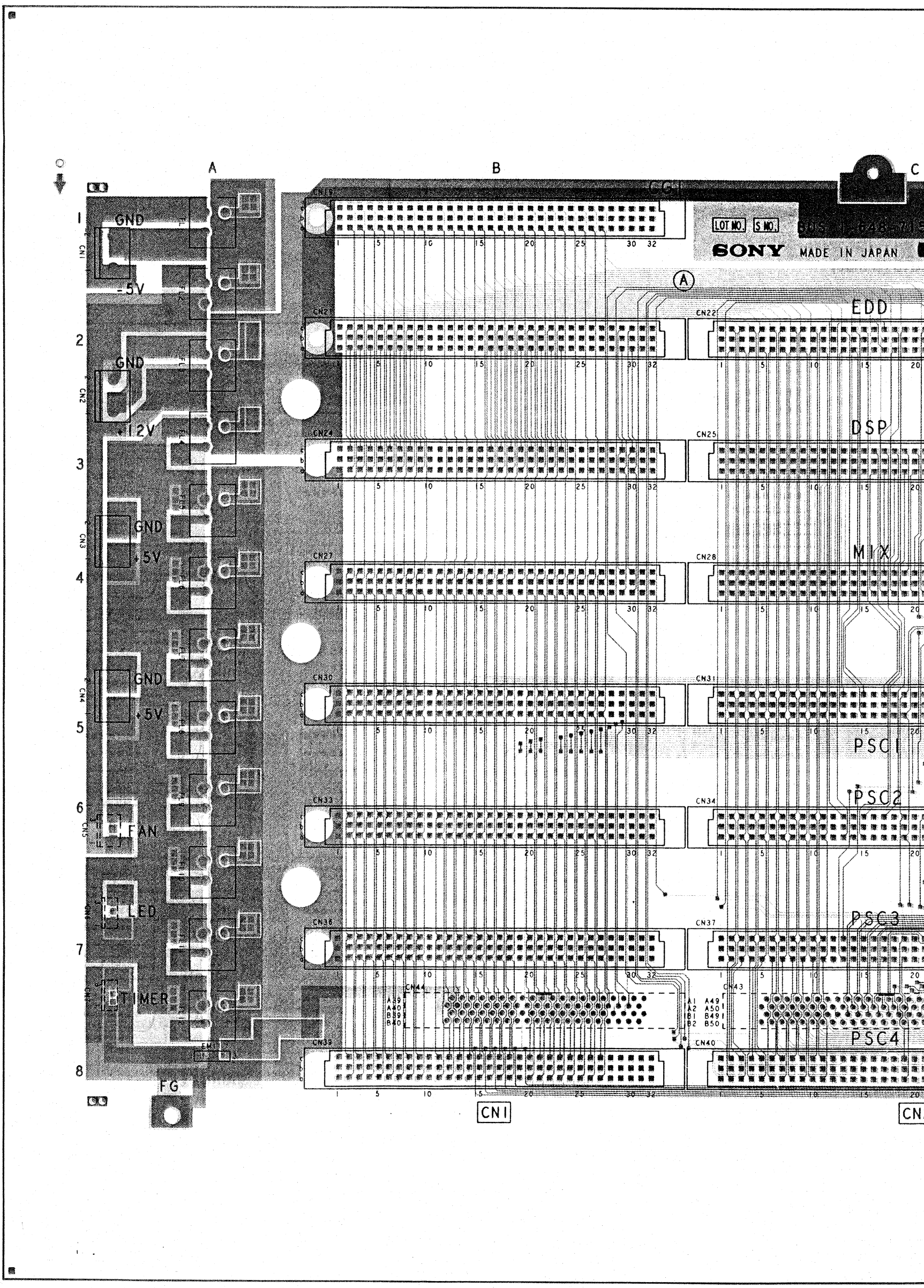
CN44 80P

1a	GNÐ
1b	GNÐ
2a	GNÐ
2b	
3a	
3b	GNÐ
4a	GNÐ
4b	ÐB 0
5a	AB 0
5b	GNÐ
6a	GNÐ
6b	ÐB 1
7a	AB 1
7b	GNÐ
8a	GNÐ
8b	ÐB 2
9a	AB 2
9b	GNÐ
10a	GNÐ
10b	ÐB 3
11a	AB 3
11b	GNÐ
12a	GNÐ
12b	ÐB 4
13a	AB 4
13b	GNÐ
14a	GNÐ
14b	ÐB 5
15a	AB 5
15b	GNÐ
16a	GNÐ
16b	ÐB 6
17a	AB 6
17b	GNÐ
18a	GNÐ
18b	ÐB 7
19a	AB 7
19b	GNÐ
20a	GNÐ
20b	
21a	AB 8
21b	GNÐ
22a	GNÐ
22b	$\overline{AS}$
23a	AB 9
23b	GNÐ
24a	GNÐ
24b	$\overline{WR}$
25a	AB 10
25b	GNÐ
26a	GNÐ
26b	$\overline{RESET}$
27a	AB 11
27b	GNÐ
28a	GNÐ
28b	$\overline{FREEZE}$
29a	AB 12
29b	GNÐ
30a	GNÐ
30b	$\overline{OE}$
31a	AB 13
31b	GNÐ
32a	GNÐ
32b	$\overline{N/P}$
33a	AB 14
33b	GNÐ
34a	GNÐ
34b	$\overline{SÐET}$
35a	AB15
35b	GNÐ
36a	GNÐ
36b	$\overline{TRRÐY}$
37a	
37b	GNÐ
38a	GNÐ
38b	TIMMER
39a	
39b	GNÐ
40a	GNÐ
40b	GNÐ

TO ÐRV BOARÐ CN60

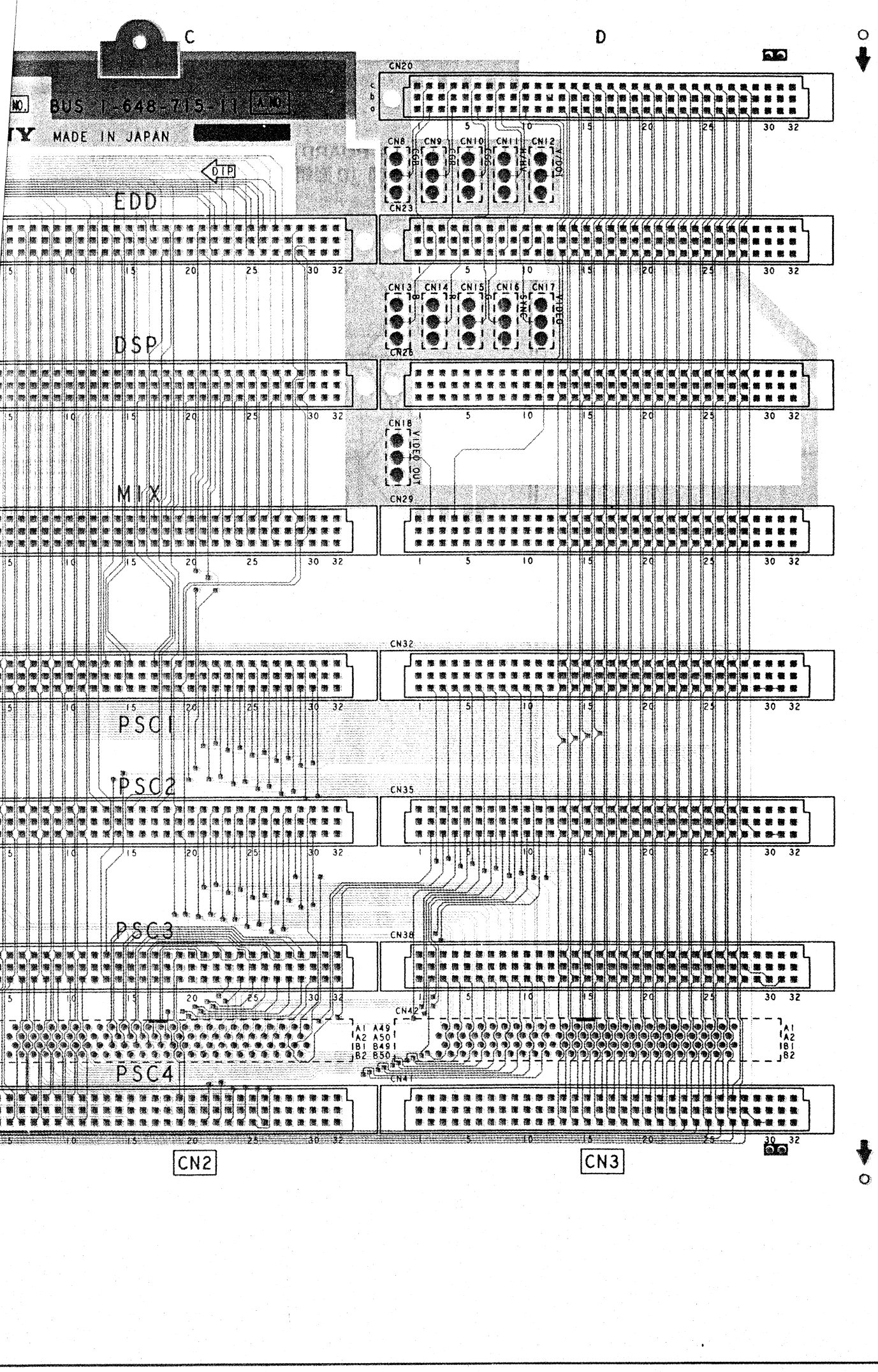
EMI1

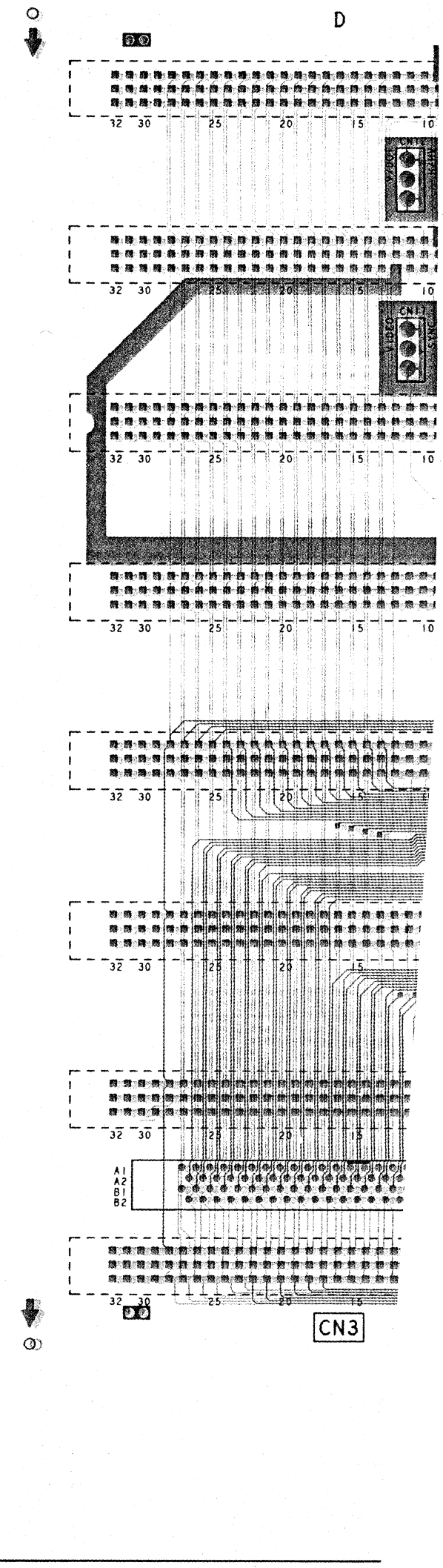
PRINTED WIRING BOARD – BUS BOARD (A side) –
BUS 基板プリント図（A 面側）



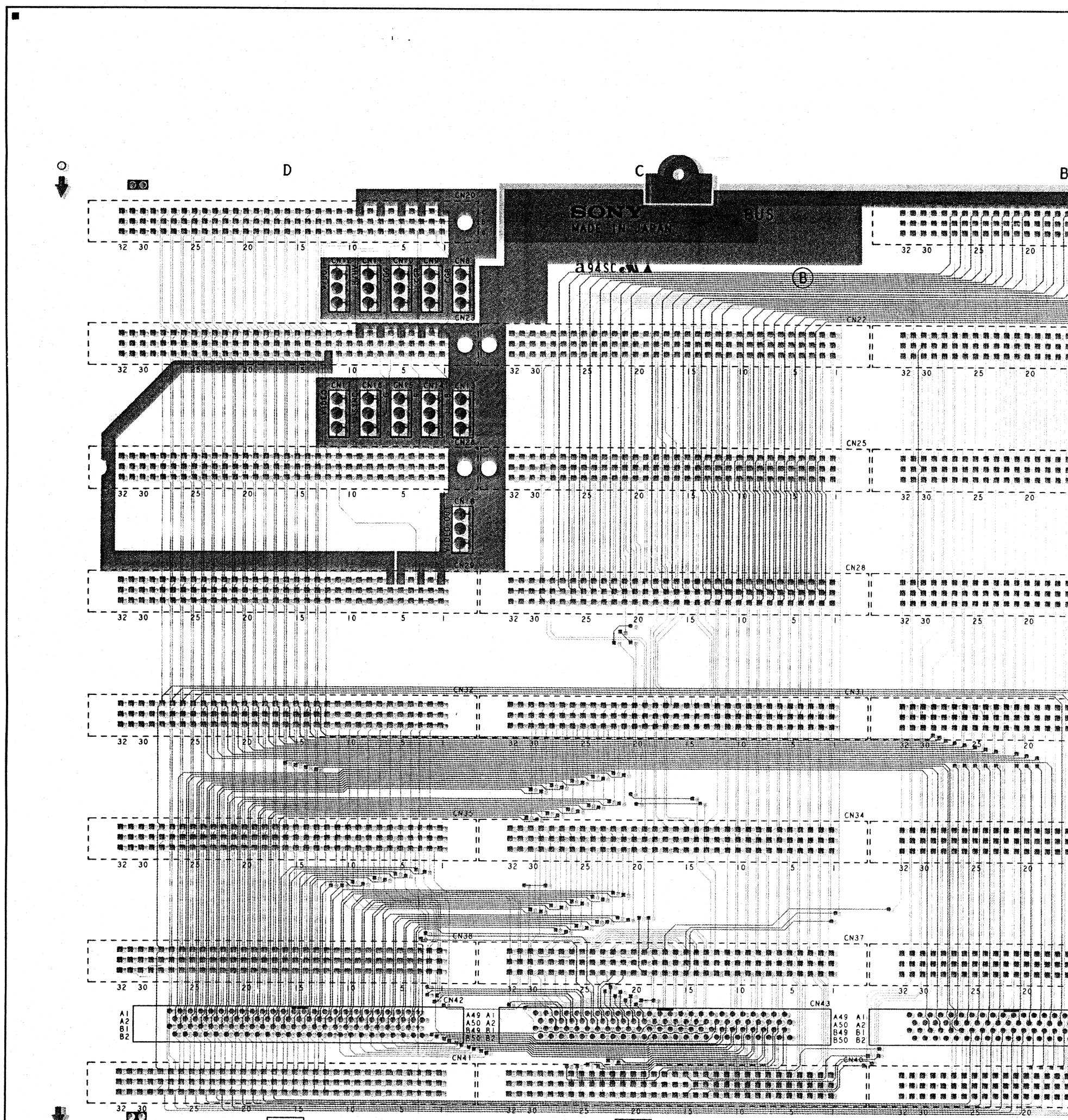
- ▒▒▒▒: Pattern from the side which enables seeing.
- ▒▒▒▒: Pattern of the rear side.
- ▒▒▒▒: は見た面側のパターン。
- ▒▒▒▒: は裏側のパターン。

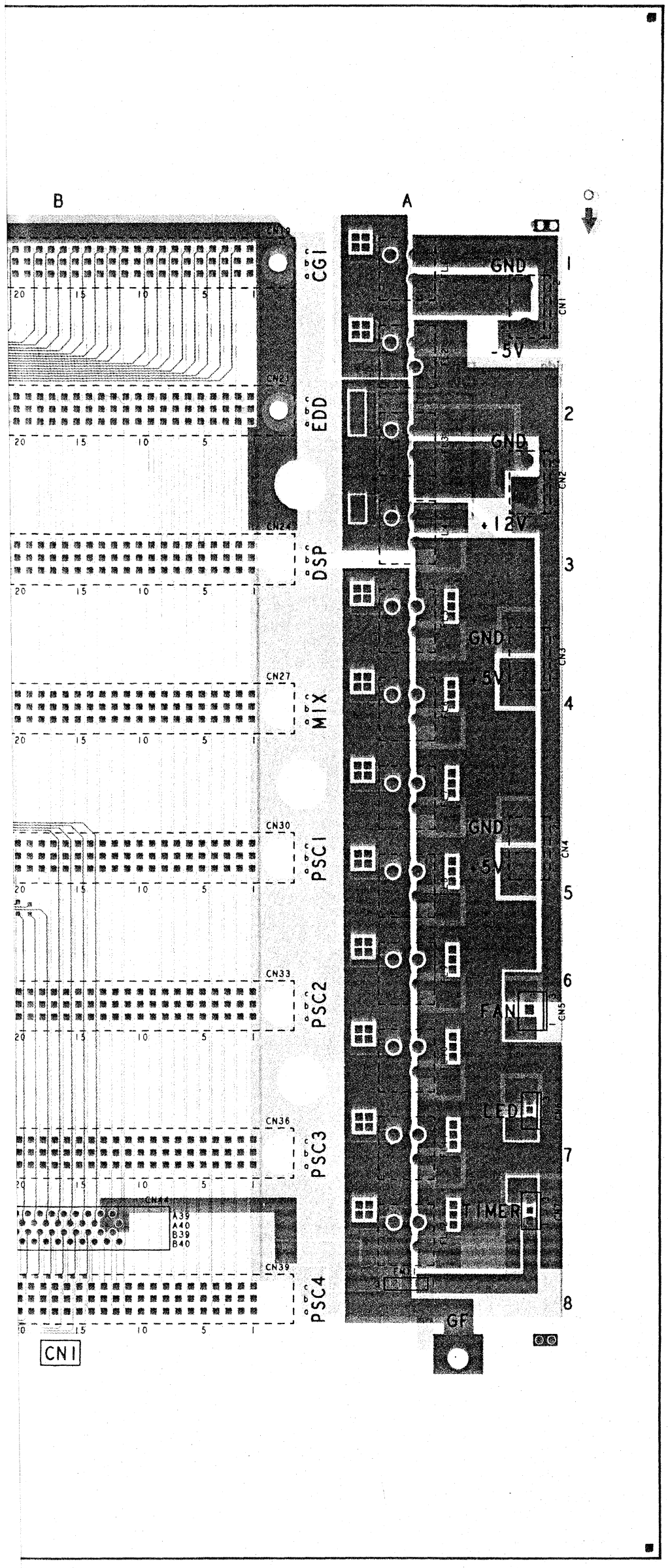
PRINTED WIRING BOARD – BUS BOARD (B si
BUS 基板プリント図（B 面側）



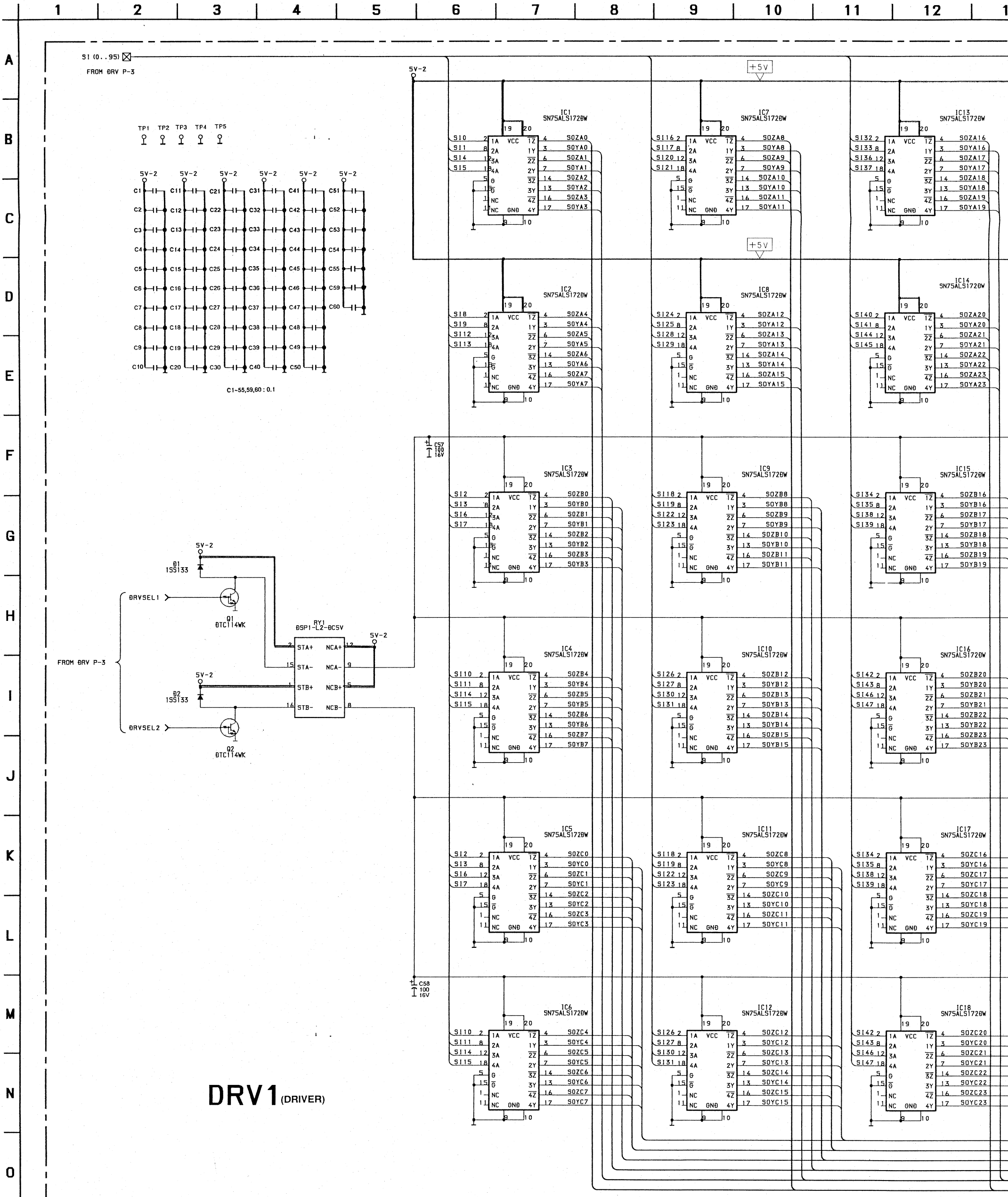


PRINTED WIRING BOARD – BUS BOARD (B side) –
BUS 基板プリント図（B 面側）




B
A
CN39
CN21
CN24
CN27
CN30
CN33
CN36
CN44
CN39
A39
A40
B39
B40
CGI
EDD
DSP
MIX
PSC1
PSC2
PSC3
PSC4
GND
-5V
GND
+12V
GND
+5V
GND
+5V
FAN
LED
TIMER
GF
CN1
CN2
CN3
CN4
CN5
1
2
3
4
5
6
7
8
CN1

SCHEMATIC DIAGRAM – DRV BOARD (1/3) –
DRV（1/3）基板回路図



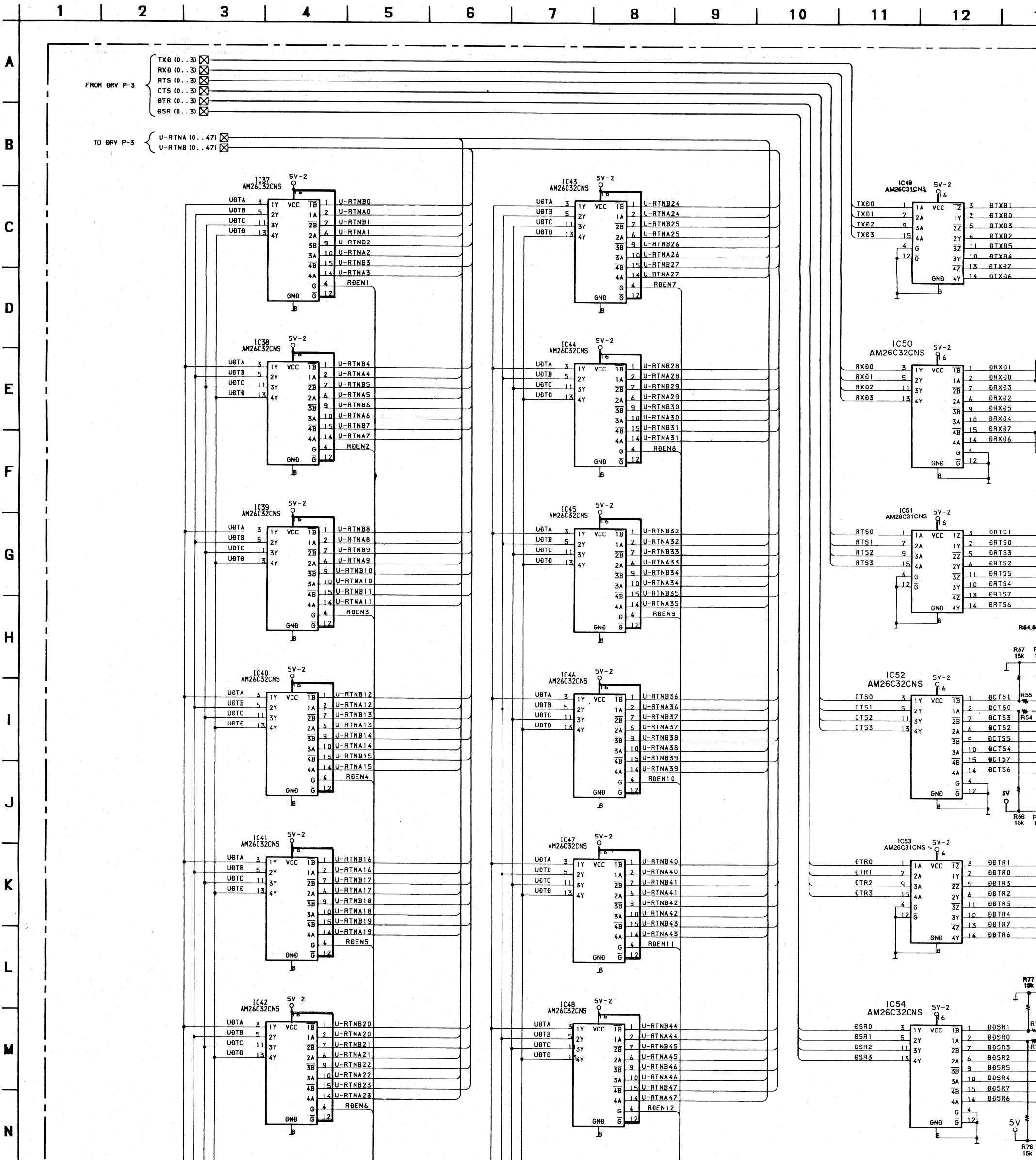
+5V

IC13 SN75ALS172ØW
IC19 SN75ALS172ØW
IC25 SN75ALS172ØW
IC31 SN75ALS172ØW
IC14 SN75ALS172ØW
IC20 SN75ALS172ØW
IC26 SN75ALS172ØW
IC32 SN75ALS172ØW
IC15 SN75ALS172ØW
IC21 SN75ALS172ØW
IC27 SN75ALS172ØW
IC33 SN75ALS172ØW
IC16 SN75ALS172ØW
IC22 SN75ALS172ØW
IC28 SN75ALS172ØW
IC34 SN75ALS172ØW
IC17 SN75ALS172ØW
IC23 SN75ALS172ØW
IC29 SN75ALS172ØW
IC35 SN75ALS172ØW
IC18 SN75ALS172ØW
IC24 SN75ALS172ØW
IC30 SN75ALS172ØW
IC36 SN75ALS172ØW

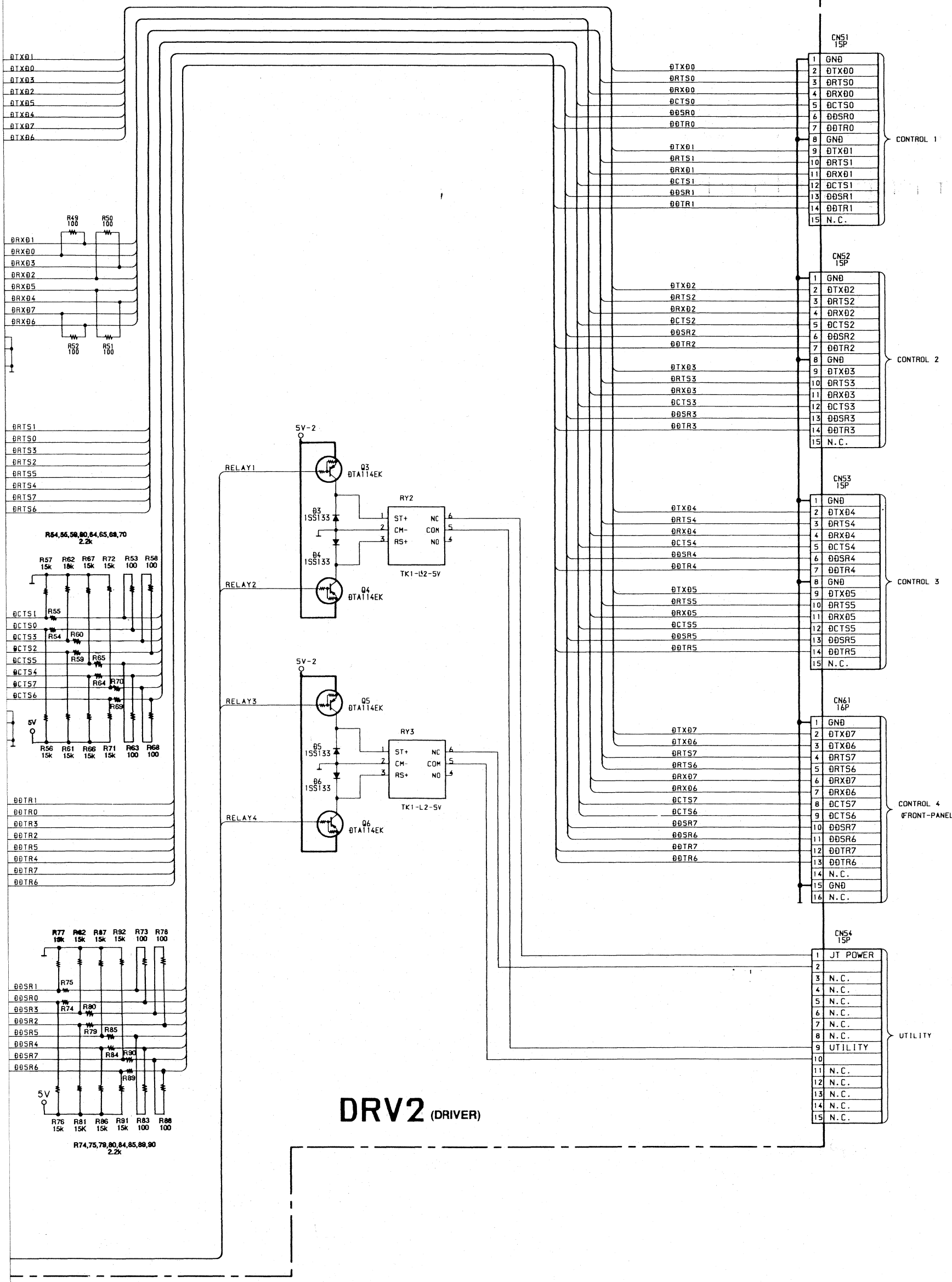
SOYC (0..47)
SOZC (0..47)
SOYB (0..47)
SOZB (0..47)
SOYA (0..47)
SOZA (0..47)

TO BRV P-3

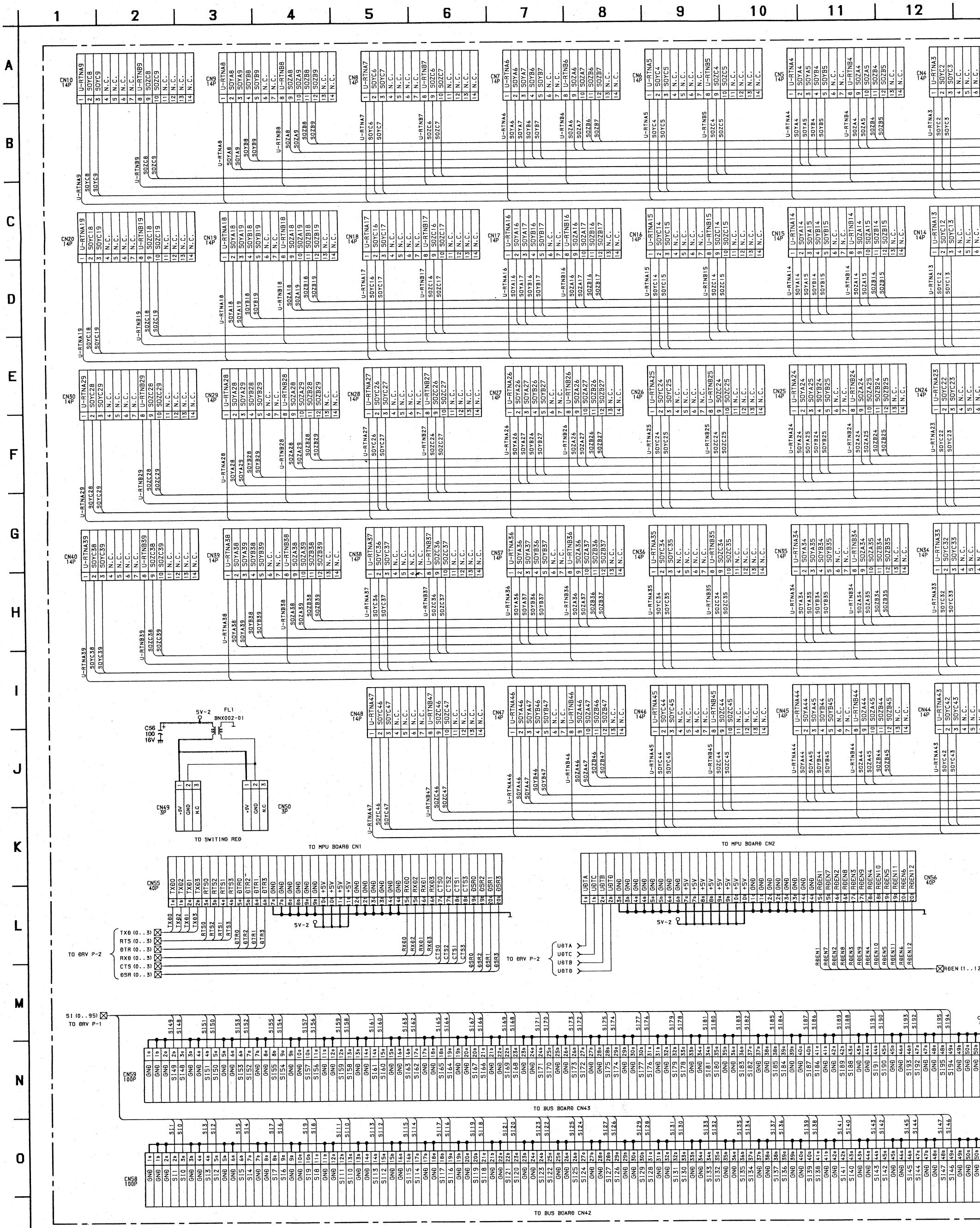
SCHEMATIC DIAGRAM – DRV BOARD (2/3) –
DRV（2/3）基板回路図



13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23



SCHEMATIC DIAGRAM – DRV BOARD (3/3) –
DRV（3/3）基板回路図



DRV3
(DRIVER)

COLUMN
(TO UNIT)

SOZB (0..47)
SOZA (0..47)
SOYB (0..47)
SOYA (0..47)
SOZC (0..47)
TO ØRV P-1
U-RTNB (0..47)
TO ØRV P-2
SOYC (0..47)
TO ØRV P-1
U-RTNA (0..47)
TO ØRV P-2

TO MPU BOARØ CN3

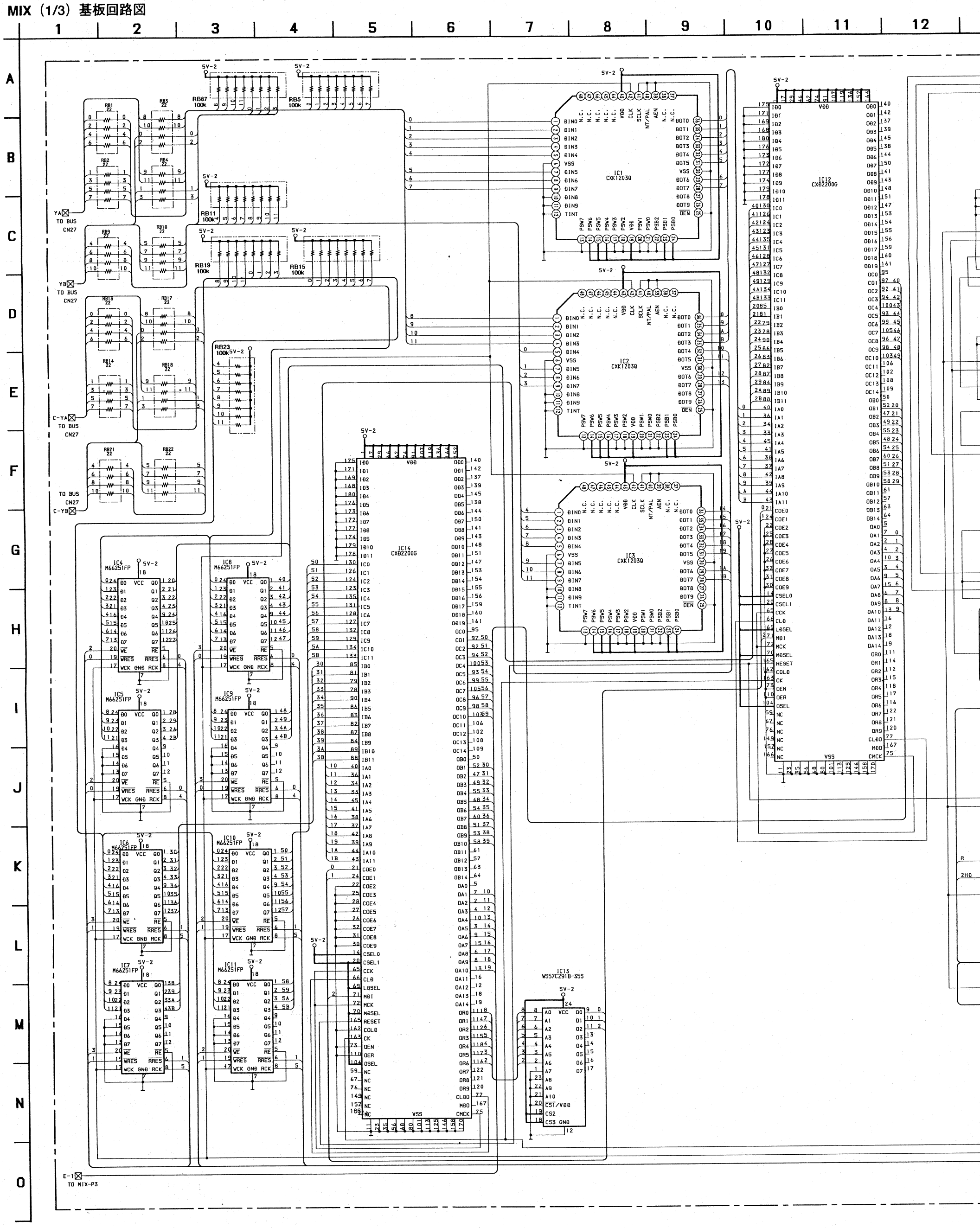
RELAY (1..4)
TO ØRV P-2
ØRVSEL2
ØRVSEL1
TO ØRV P-1

Q7
ØTC114WK

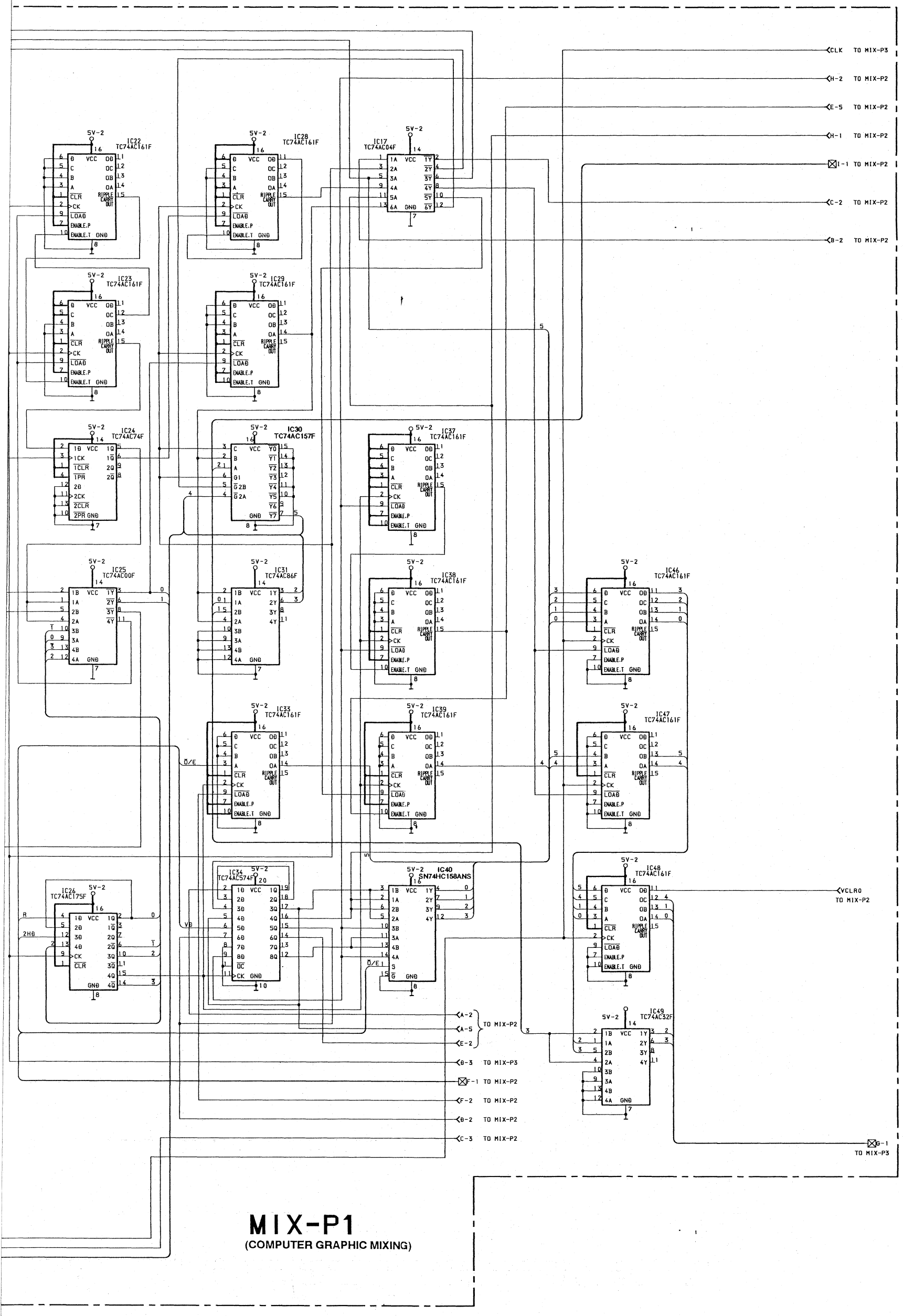
RØEN (1..12) FROM ØRV P-2

TO BUS BOARØ CN44

SCHEMATIC DIAGRAM – MIX BOARD (1/3) –
MIX（1/3）基板回路図

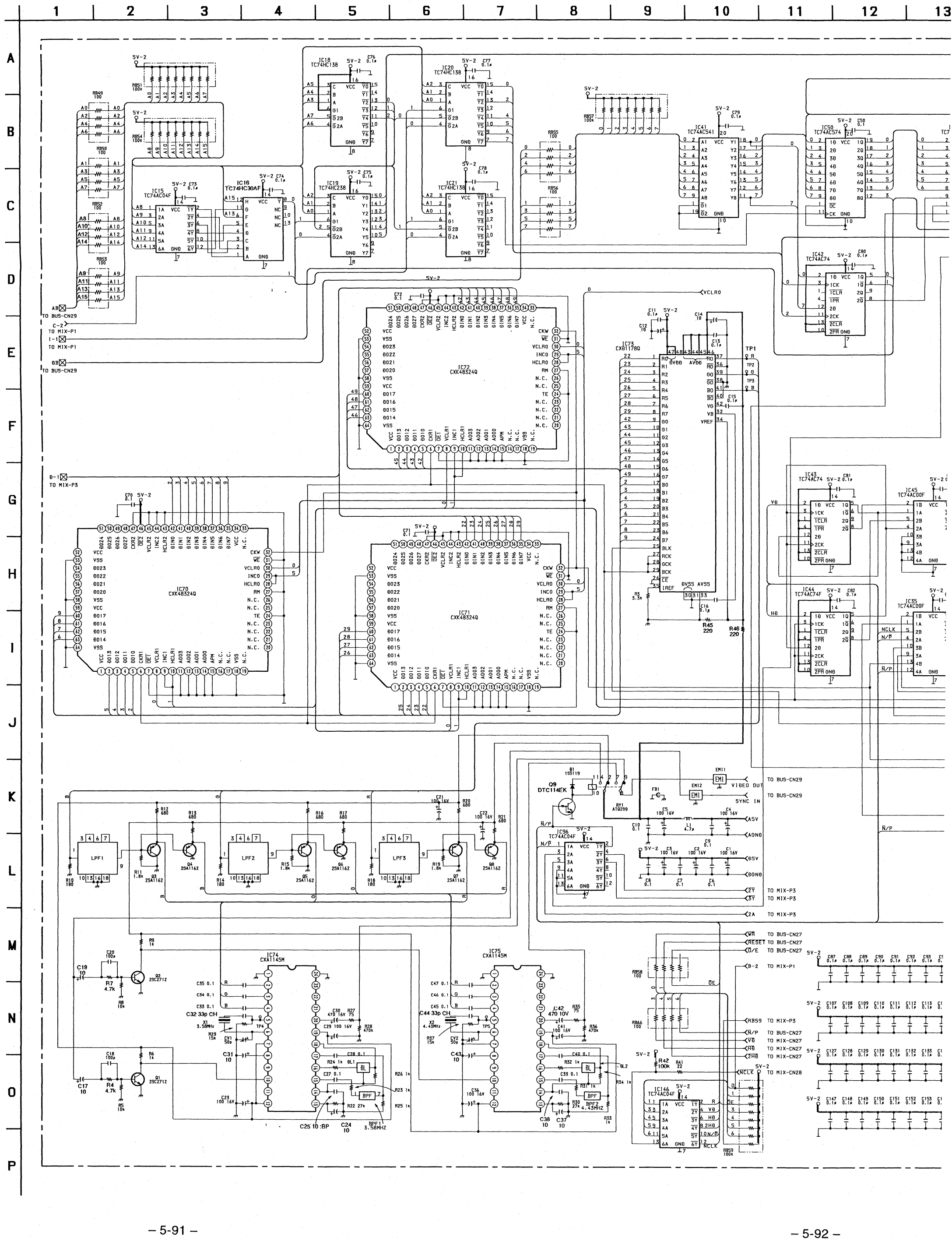


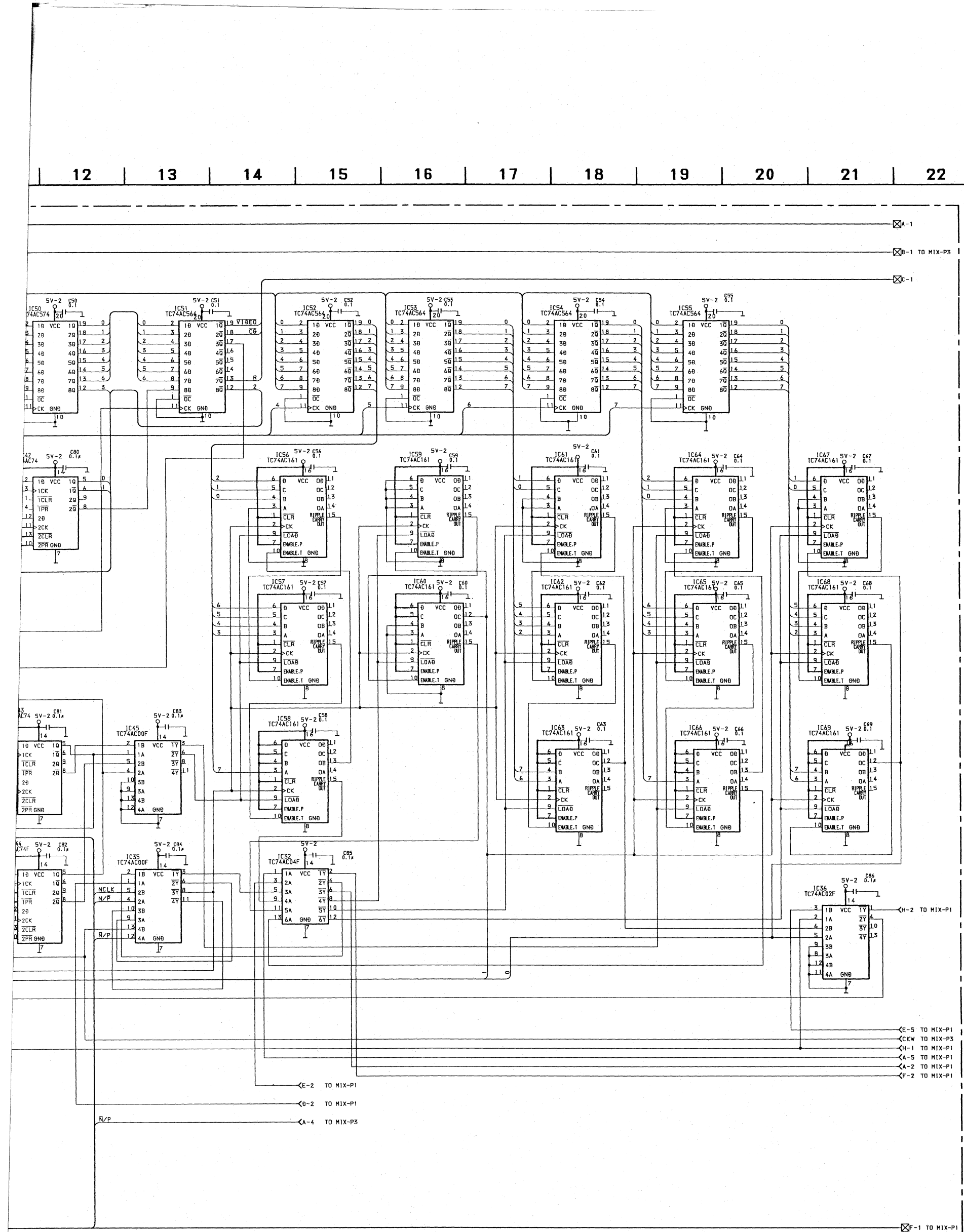
13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23

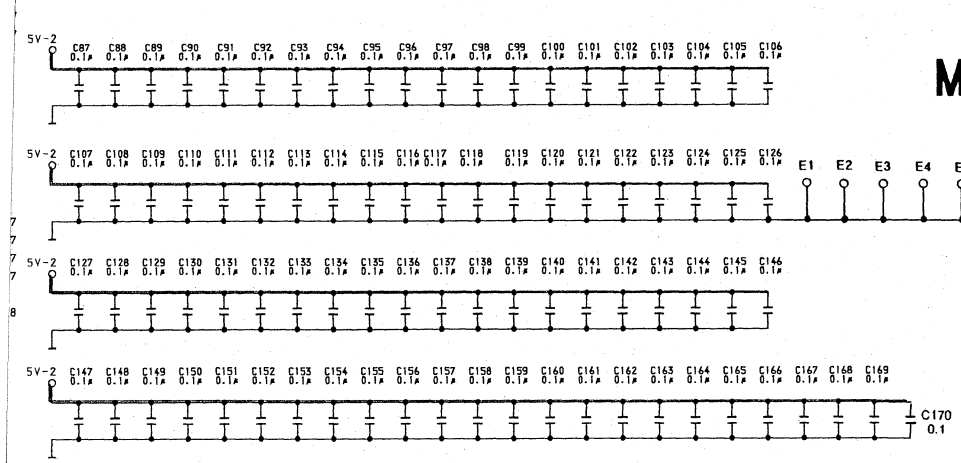


MIX-P1
(COMPUTER GRAPHIC MIXING)

SCHEMATIC DIAGRAM – MIX BOARD (2/3) –
MIX（2/3）基板回路図

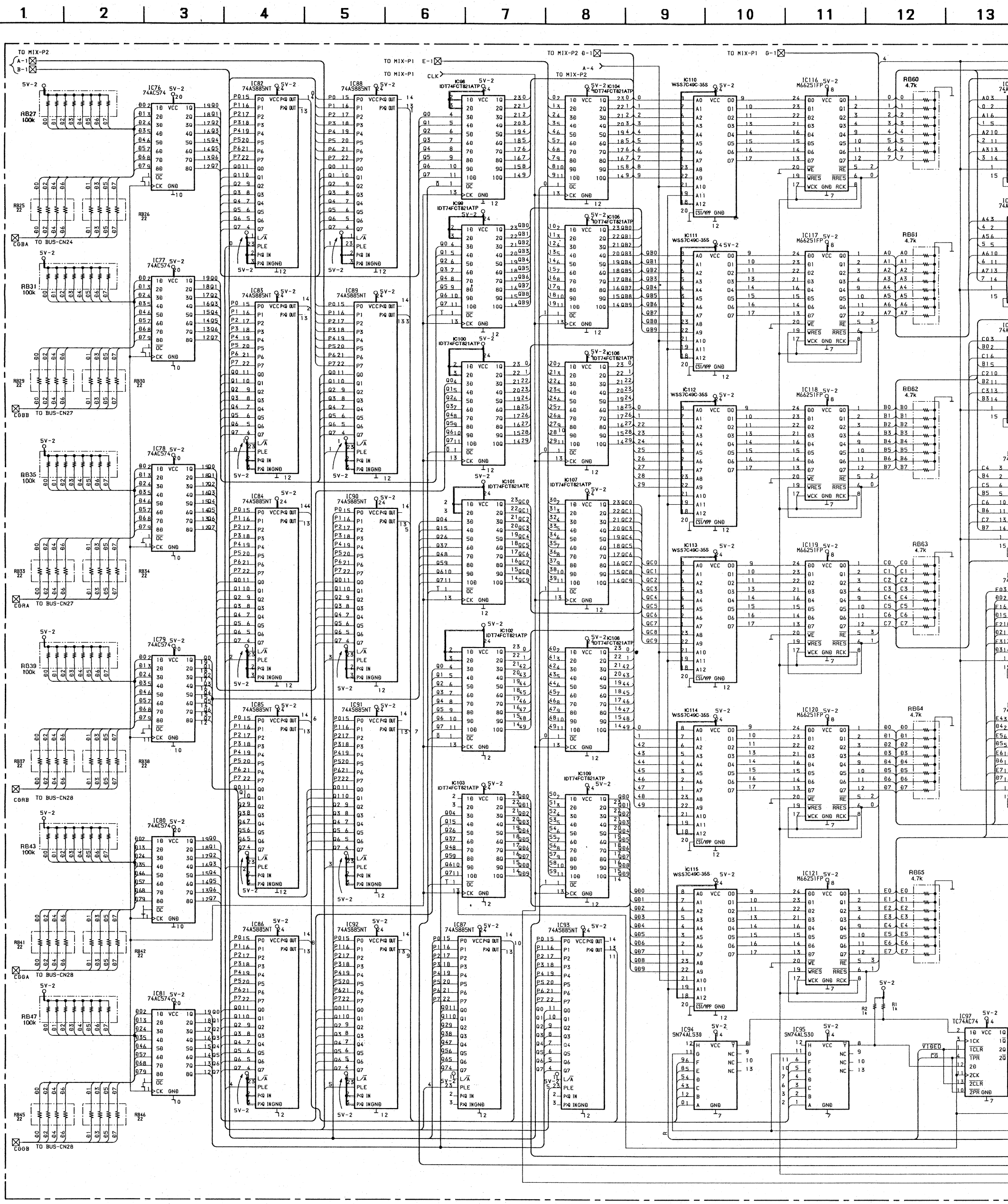






MIX-P2 (COMPUTER GRAPHIC MIXING)

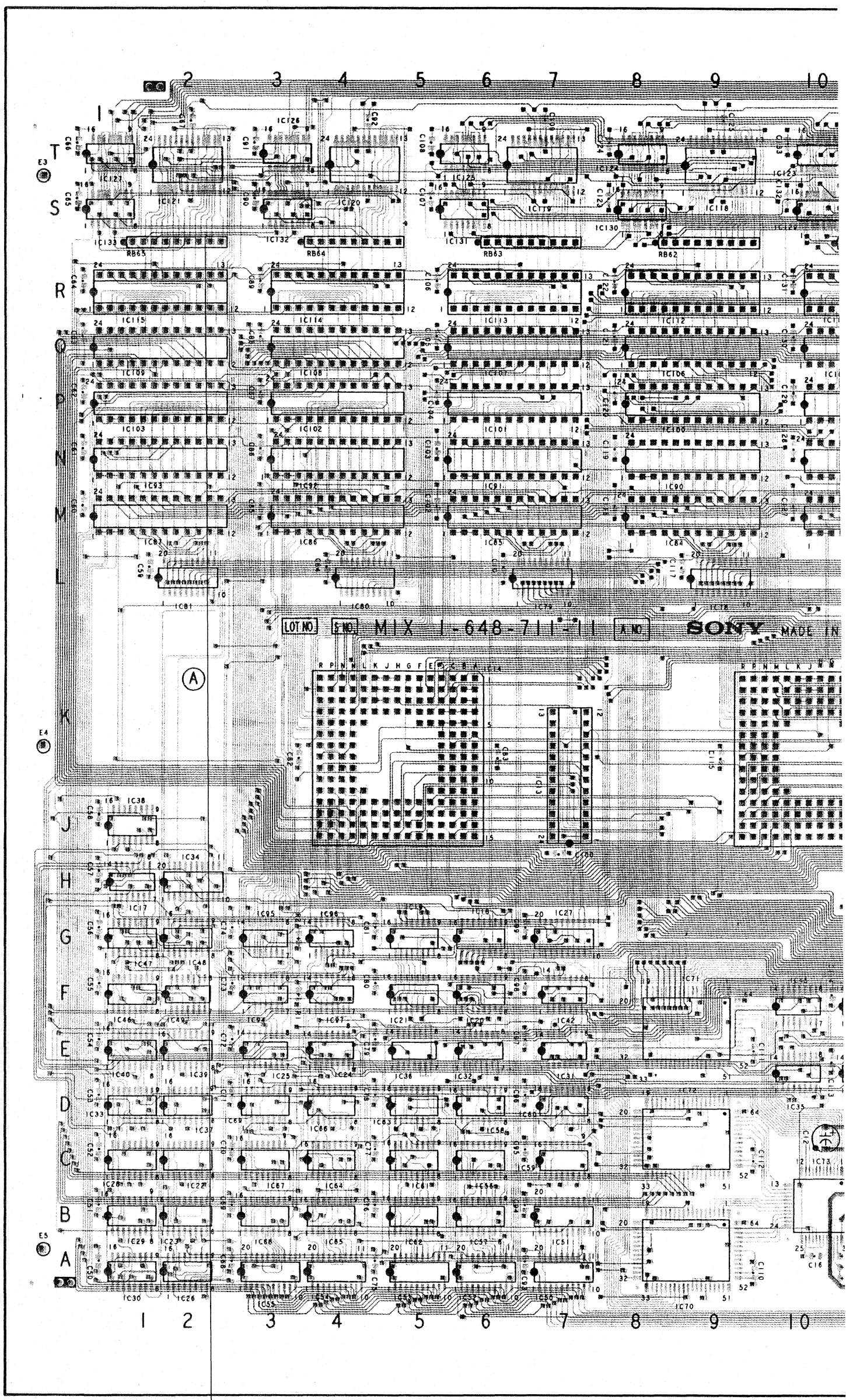
SCHEMATIC DIAGRAM – MIX BOARD (1/3) –
MIX（1/3）基板回路図



13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23

MIX-P3
(COMPUTER GRAPHIC MIXING)

PRINTED WIRING BOARD – MIX BOARD (A side) –
MIX（A side）基板回路図



MIX Board–A side
MIX 基板（A面側）

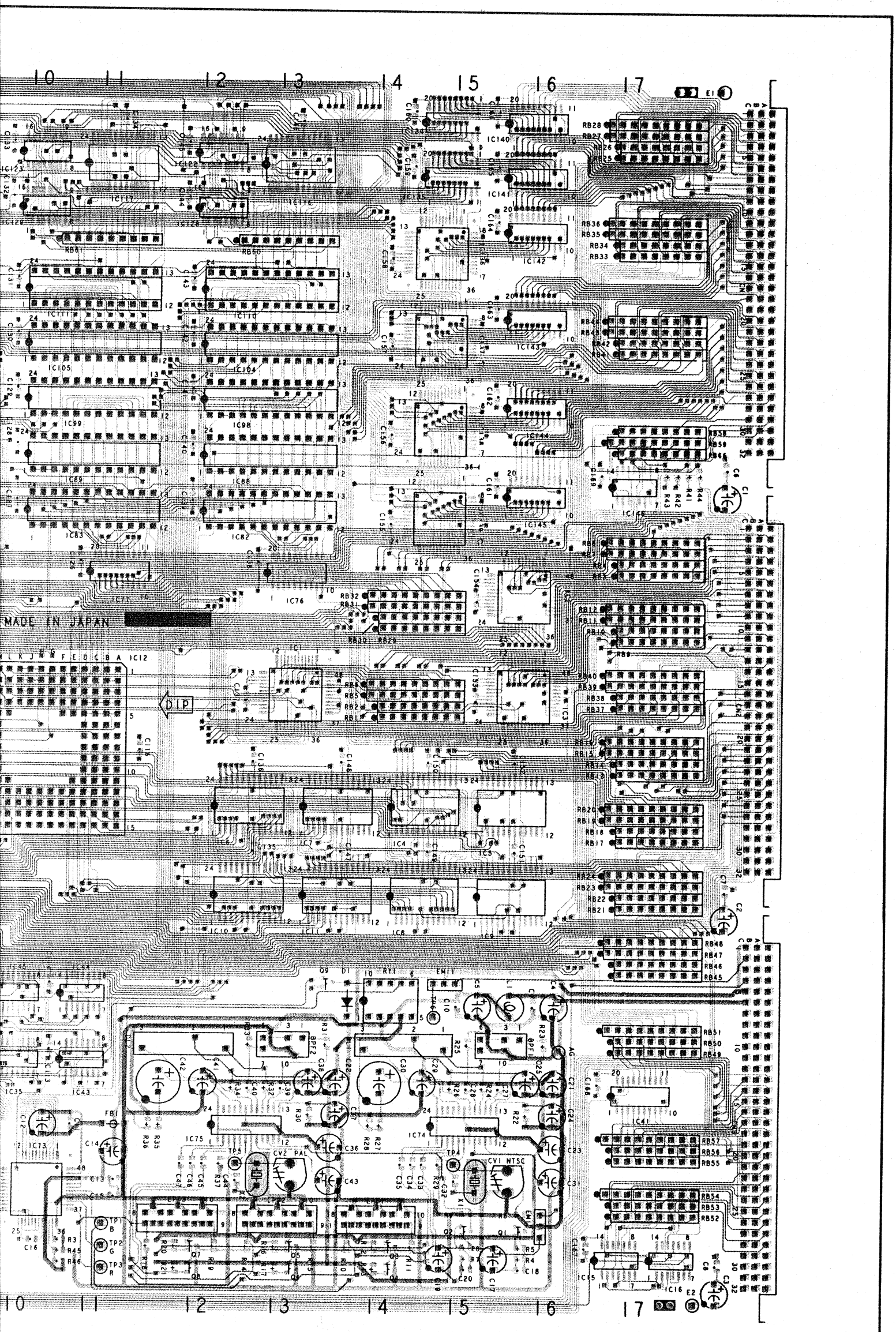
IC		IC		IC	
IC1	K-13	IC56	C-6	IC111	R-10
IC2	L-16	IC57	B-6	IC112	R-8
IC3	K-16	IC58	D-6	IC113	R-6
IC4	J-14	IC59	C-7	IC114	R-4
IC5	J-15	IC60	D-7	IC115	R-1
IC6	J-12	IC61	C-5	IC116	T-13
IC7	J-13	IC62	B-5	IC117	T-11
IC8	H-14	IC63	D-5	IC118	T-9
IC9	H-15	IC64	C-4	IC119	T-7
IC10	H-12	IC65	B-4	IC120	T-4
IC11	H-13	IC66	D-4	IC121	T-2
IC12	K-10	IC67	C-3	IC122	T-12
IC13	J-7	IC68	B-3	IC123	T-10
IC14	K-5	IC69	D-3	IC124	T-8
IC15	A-17	IC70	B-9	IC125	T-6
IC16	A-17	IC71	F-9	IC126	T-3
IC17	H-1	IC72	D-9	IC127	T-1
IC18	G-6	IC73	B-10	IC128	S-12
IC19	G-5	IC74	D-15	IC129	S-10
IC20	F-6	IC75	D-12	IC130	S-8
IC21	F-5	IC76	L-13	IC131	S-6
IC22	C-2	IC77	L-11	IC132	S-3
IC23	B-2	IC78	L-9	IC133	S-1
IC24	E-4	IC79	L-7	IC134	T-14
IC25	E-3	IC80	L-4	IC135	T-14
IC26	A-2	IC81	L-2	IC136	S-14
IC27	G-7	IC82	M-12	IC137	Q-14
IC28	C-1	IC83	M-10	IC138	N-14
IC29	B-1	IC84	M-8	IC139	M-14
IC30	A-1	IC85	M-6	IC140	T-16
IC31	E-7	IC86	M-4	IC141	T-16
IC32	E-6	IC87	M-1	IC142	S-16
IC33	D-1	IC88	N-12	IC143	R-16
IC34	H-2	IC89	N-10	IC144	P-16
IC35	E-10	IC90	N-8	IC145	M-16
IC36	E-5	IC91	N-6	IC146	M-17
IC37	D-2	IC92	N-4	**TRANSISTOR**	
IC38	J-1	IC93	N-1	Q1	B-16
IC39	E-2	IC94	F-3	Q2	B-15
IC40	E-1	IC95	G-3	Q3	A-14
IC41	D-17	IC96	G-4	Q4	A-14
IC42	F-7	IC97	F-4	Q5	A-13
IC43	E-11	IC98	P-12	Q6	A-13
IC44	F-11	IC99	P-10	Q7	A-12
IC45	F-10	IC100	P-8	Q8	A-12
IC46	F-1	IC101	P-6	Q9	F-13
IC47	G-1	IC102	P-4	**DIODE**	
IC48	G-2	IC103	P-1	D1	F-14
IC49	F-2	IC104	Q-12		
IC50	A-7	IC105	Q-10		
IC51	B-7	IC106	Q-8		
IC52	A-6	IC107	Q-6		
IC53	A-5	IC108	Q-4		
IC54	A-4	IC109	Q-1		
IC55	A-3	IC110	R-12		

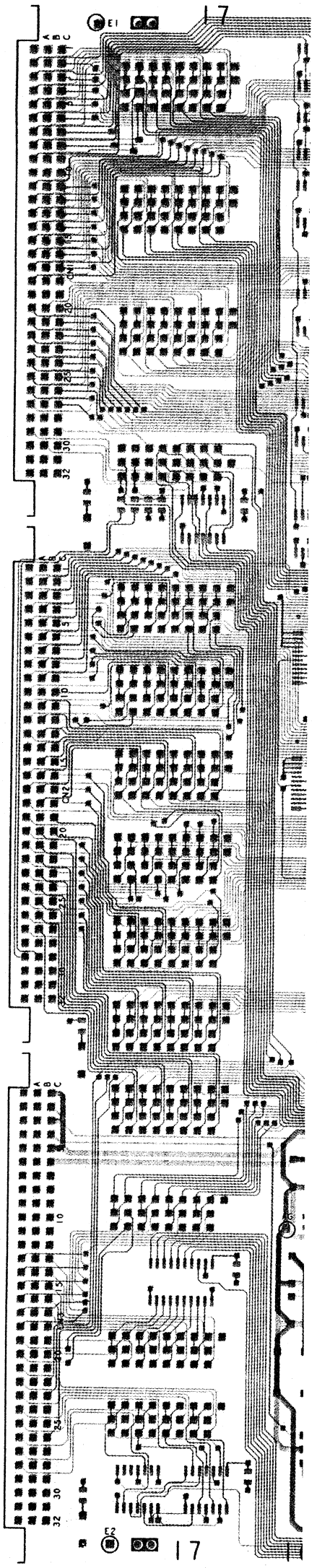
MIX Board–B side
MIX 基板（B面側）

IC	
IC12	K-10
IC13	J-7
IC14	K-5
IC82	M-12
IC83	M-10
IC84	M-8
IC85	M-6
IC86	M-4
IC87	M-1
IC88	N-12
IC89	N-10
IC90	N-8
IC91	N-6
IC92	N-4
IC93	N-1
IC98	P-12
IC99	P-10
IC100	P-8
IC101	P-6
IC102	P-4
IC103	P-1
IC104	Q-12
IC105	Q-10
IC106	Q-8
IC107	Q-6
IC108	Q-4
IC109	Q-1
IC110	R-12
IC111	R-10
IC112	R-8
IC113	R-6
IC114	R-4
IC115	R-1
DIODE	
D1	F-14

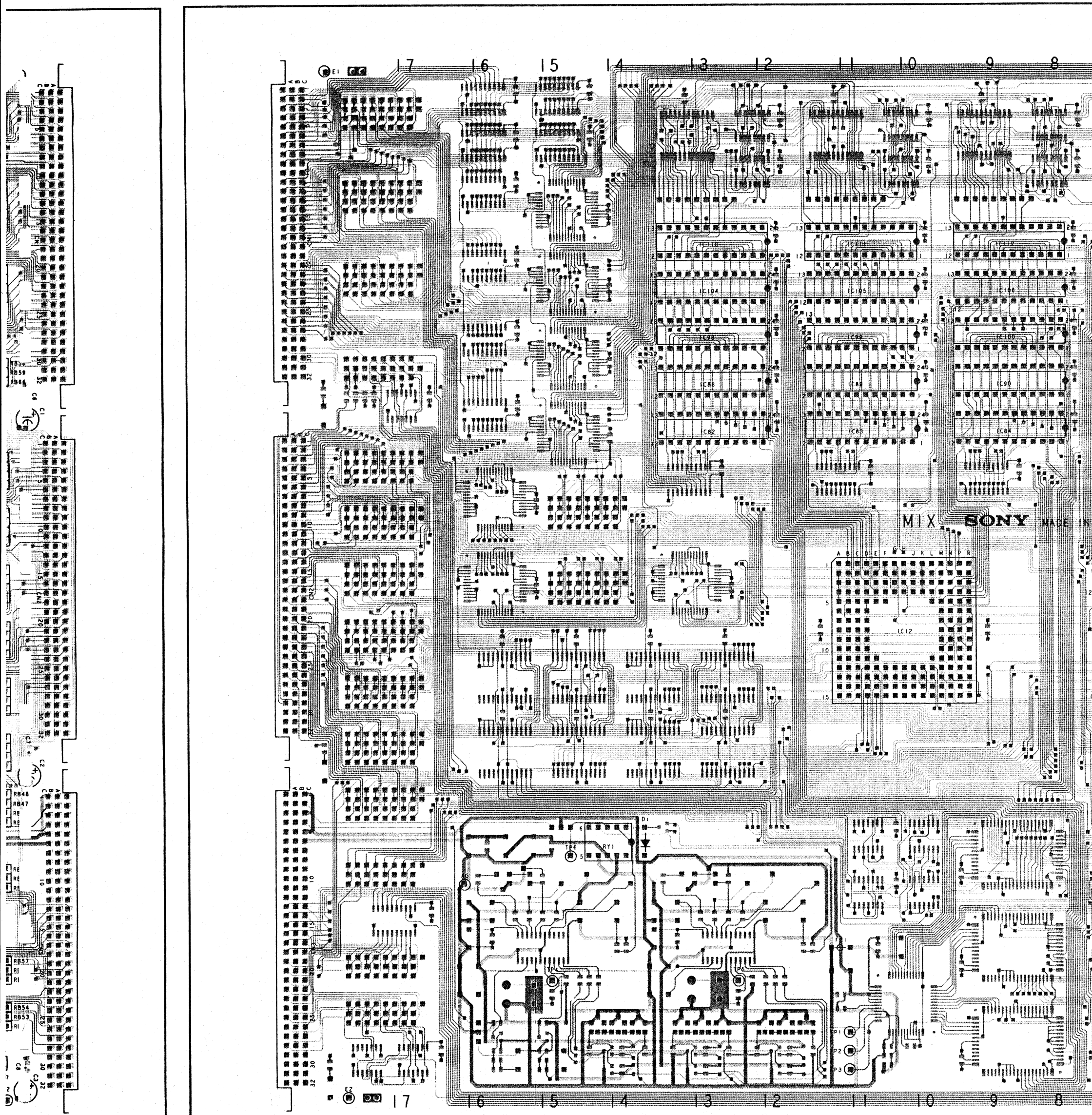
- ▒▒▒: Pattern from the side which enables seeing.
- ▒▒▒: Pattern of the rear side.
- ▒▒▒: は見た面側のパターン。
- ▒▒▒: は裏側のパターン。

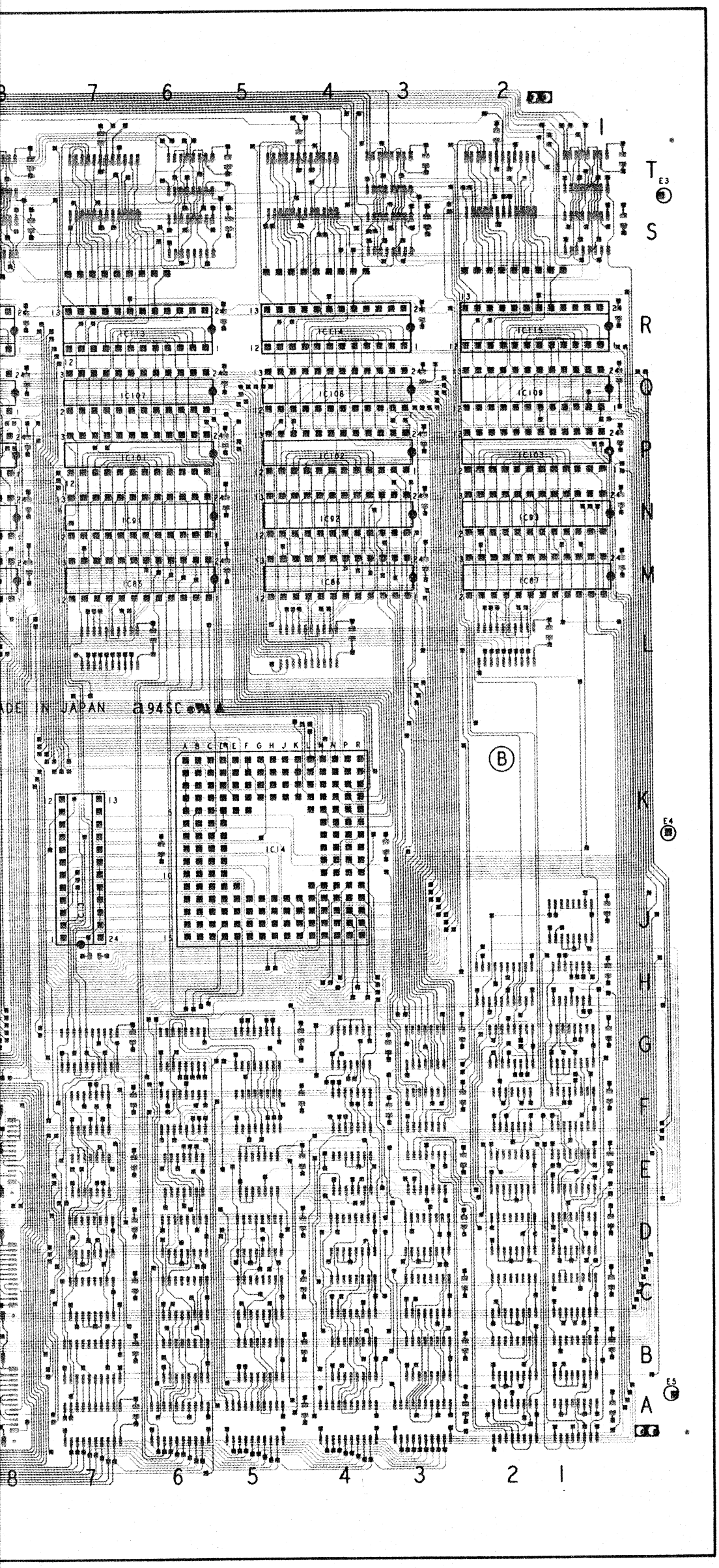
PRINTED WIRING BOARD – MIX BOARD
MIX 基板回路図（B 面側）





PRINTED WIRING BOARD – MIX BOARD (B side) –
MIX 基板回路図（B 面側）




8 7 6 5 4 3 2 1
T
S
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P
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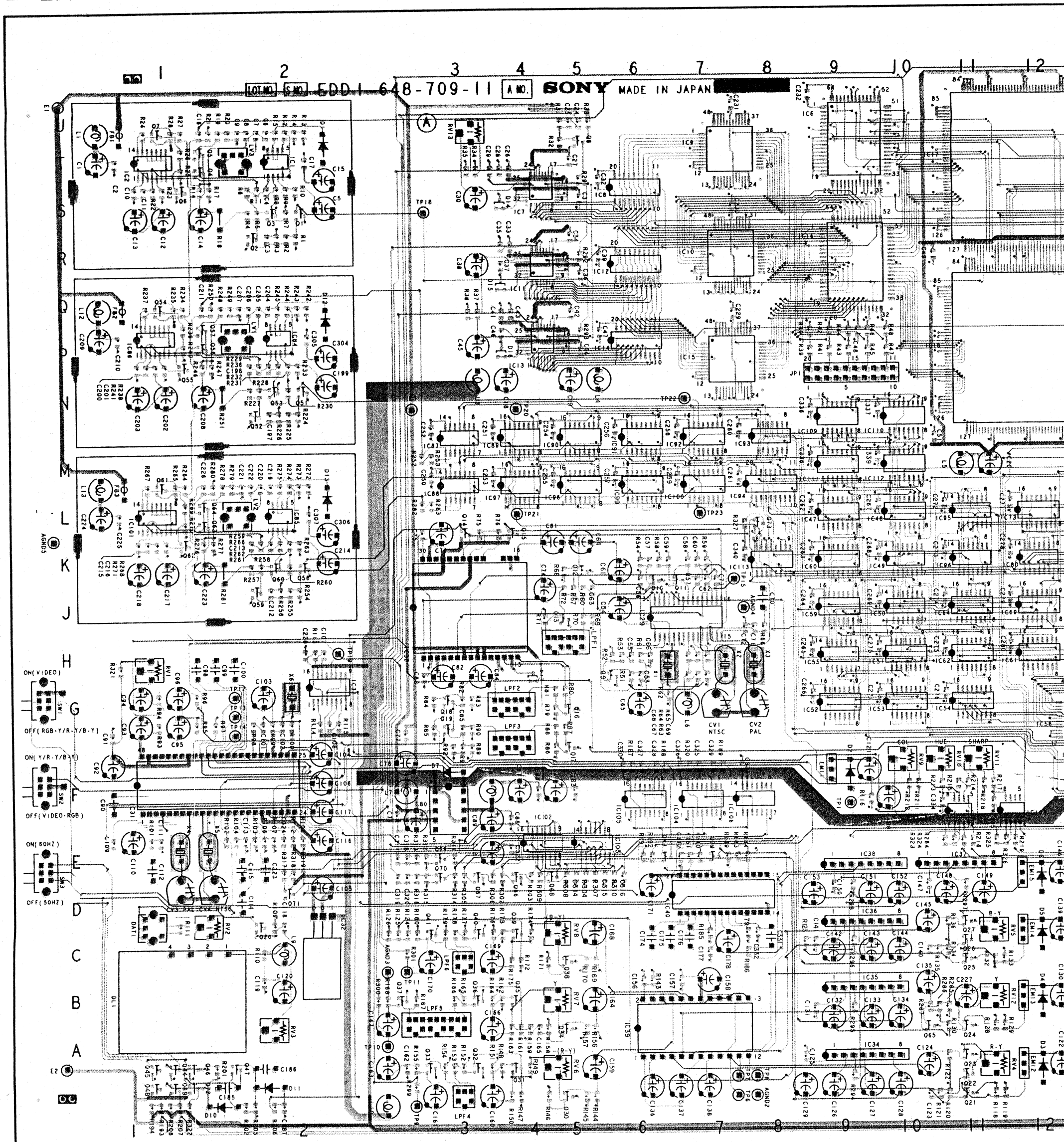
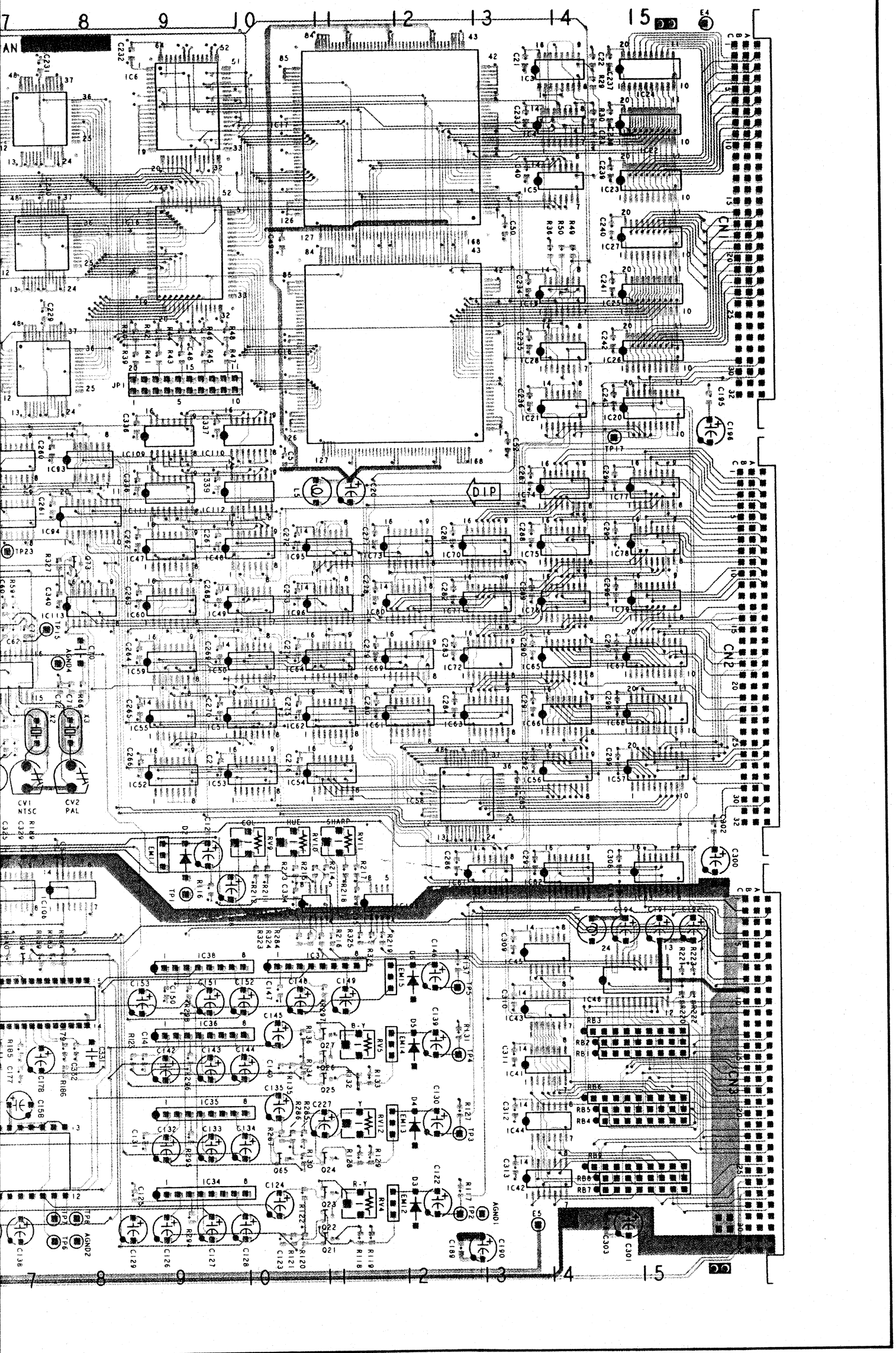
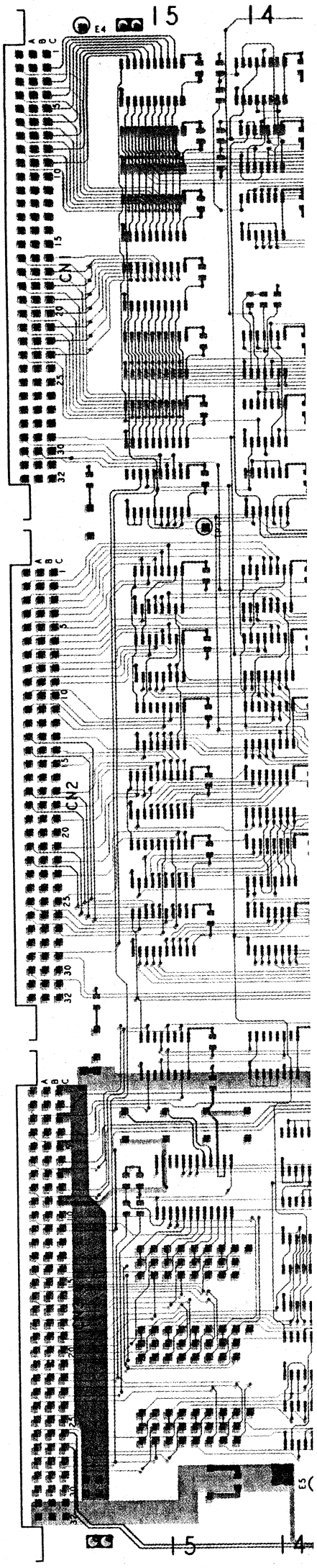
K
J
H
G
F
E
D
C
B
A
E3
E4
E5
IC113
IC114
IC115
IC107
IC108
IC109
IC101
IC102
IC103
IC91
IC92
IC93
IC85
IC86
IC87
IC14
B
ADE IN JAPAN a945C

PRINTED WIRING BOARD – EDD BOARD (A side) –
EDD 基板回路図（A 面側）

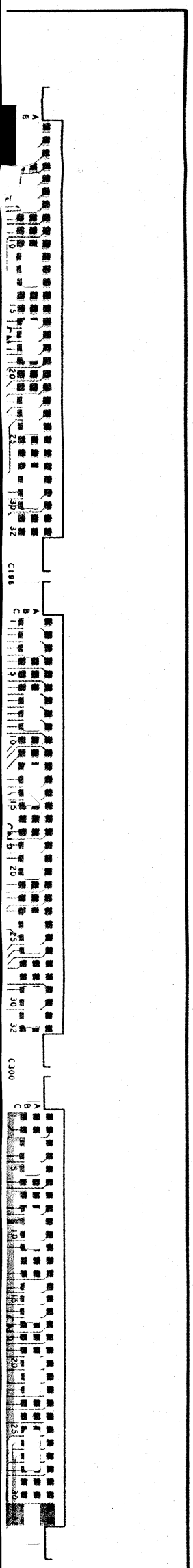


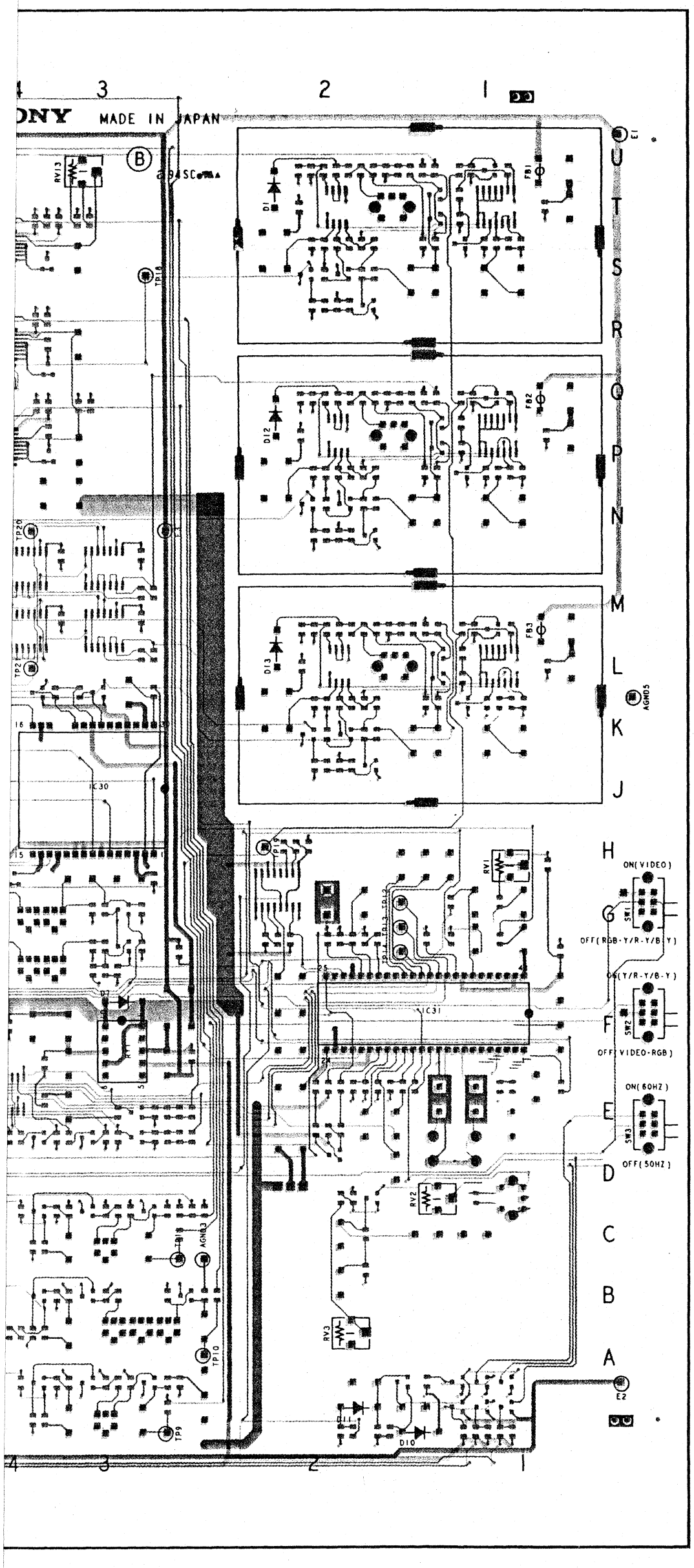
PRINTED WIRING BOARD – EDD BOARD
EDD 基板回路図（B 面側）





PRINTED WIRING BOARD – EDD BOARD (B side –
EDD 基板回路図（B面側）





EDD Board–A side
EDD 基板（A 面側）

IC							
IC1	T-2	IC51	H-10	IC101	L-1	Q46	A-1
IC2	T-1	IC52	G-9	IC102	E-4	Q47	A-2
IC3	U-14	IC53	G-10	IC103	E-5	Q48	A-1
IC4	T-14	IC54	G-11	IC104	F-7	Q49	A-1
IC5	S-14	IC55	H-9	IC105	F-6	Q50	-
IC6	U-9	IC56	G-14	TRANSISTOR		Q51	N-2
IC7	S-4	IC57	G-15			Q52	N-2
IC8	S-6	IC58	G-13	Q1	S-2	Q53	N-2
IC9	T-7	IC59	J-9	Q2	R-2	Q54	Q-1
IC10	R-7	IC60	K-9	Q3	S-2	Q55	P-1
IC11	R-4	IC61	H-12	Q4	T-1	Q56	P-1
IC12	R-6	IC62	H-11	Q5	T-1	Q57	Q-1
IC13	P-4	IC63	H-13	Q6	S-1	Q58	K-2
IC14	P-6	IC64	J-11	Q7	U-1	Q59	J-2
IC15	P-7	IC65	J-14	Q8	T-5	Q60	K-2
IC16	R-9	IC66	H-14	Q9	H-6	Q61	M-1
IC17	T-11	IC67	J-15	Q10	J-6	Q62	K-1
IC18	P-11	IC68	H-15	Q11	J-7	Q63	L-1
IC19	Q-14	IC69	J-12	Q12	K-5	Q64	L-1
IC20	N-15	IC70	L-13	Q13	J-5	Q65	A-10
IC21	N-14	IC71	K-13	Q14	L-3	DIODE	
IC22	T-15	IC72	J-13	Q15	L-4		
IC23	S-15	IC73	L-12	Q16	G-5	D1	T-2
IC24	U-15	IC74	M-14	Q17	F-5	D2	F-9
IC25	Q-15	IC75	L-14	Q18	G-3	D3	A-12
IC26	P-15	IC76	K-14	Q19	G-3	D4	B-12
IC27	R-15	IC77	M-15	Q20	D-2	D5	C-12
IC28	P-14	IC78	L-15	Q21	A-11	D6	D-12
IC29	J-6	IC79	K-15	Q22	A-11	D7	F-3
IC30	J-3	IC80	K-12	Q23	A-11	D8	-
IC31	F-1	IC81	F-13	Q24	A-11	D9	-
IC32	C-2	IC82	F-14	Q25	C-11	D10	A-2
IC33	G-2	IC83	F-15	Q26	C-11	D11	A-2
IC34	A-9	IC84	P-2	Q27	D-11	D12	Q-2
IC35	B-9	IC85	L-2	Q28	-	D13	L-2
IC36	D-9	IC86	L-1	Q29	E-7	VARIABLE RESISTOR	
IC37	E-11	IC87	M-3	Q30	A-5		
IC38	E-9	IC88	L-3	Q31	A-4	RV1	H-1
IC39	B-7	IC89	M-4	Q32	A-3	RV2	D-1
IC40	D-7	IC90	M-5	Q33	A-3	RV3	A-2
IC41	C-14	IC91	M-6	Q34	A-5	RV4	A-11
IC42	A-14	IC92	M-7	Q35	B-4	RV5	C-11
IC43	D-14	IC93	M-8	Q36	B-3	RV6	A-5
IC44	B-14	IC94	L-8	Q37	B-3	RV7	B-5
IC45	E-14	IC95	L-11	Q38	C-5	RV8	C-5
IC46	D-15	IC96	K-11	Q39	C-4	RV9	F-10
IC47	L-9	IC97	L-4	Q40	C-3	RV10	F-11
IC48	L-10	IC98	L-5	Q41	C-3	RV11	F-11
IC49	K-10	IC99	L-6	Q42	-	RV12	B-11
IC50	J-10	IC100	L-7	Q43	E-6		
				Q44	A-1		
				Q45	A-1		

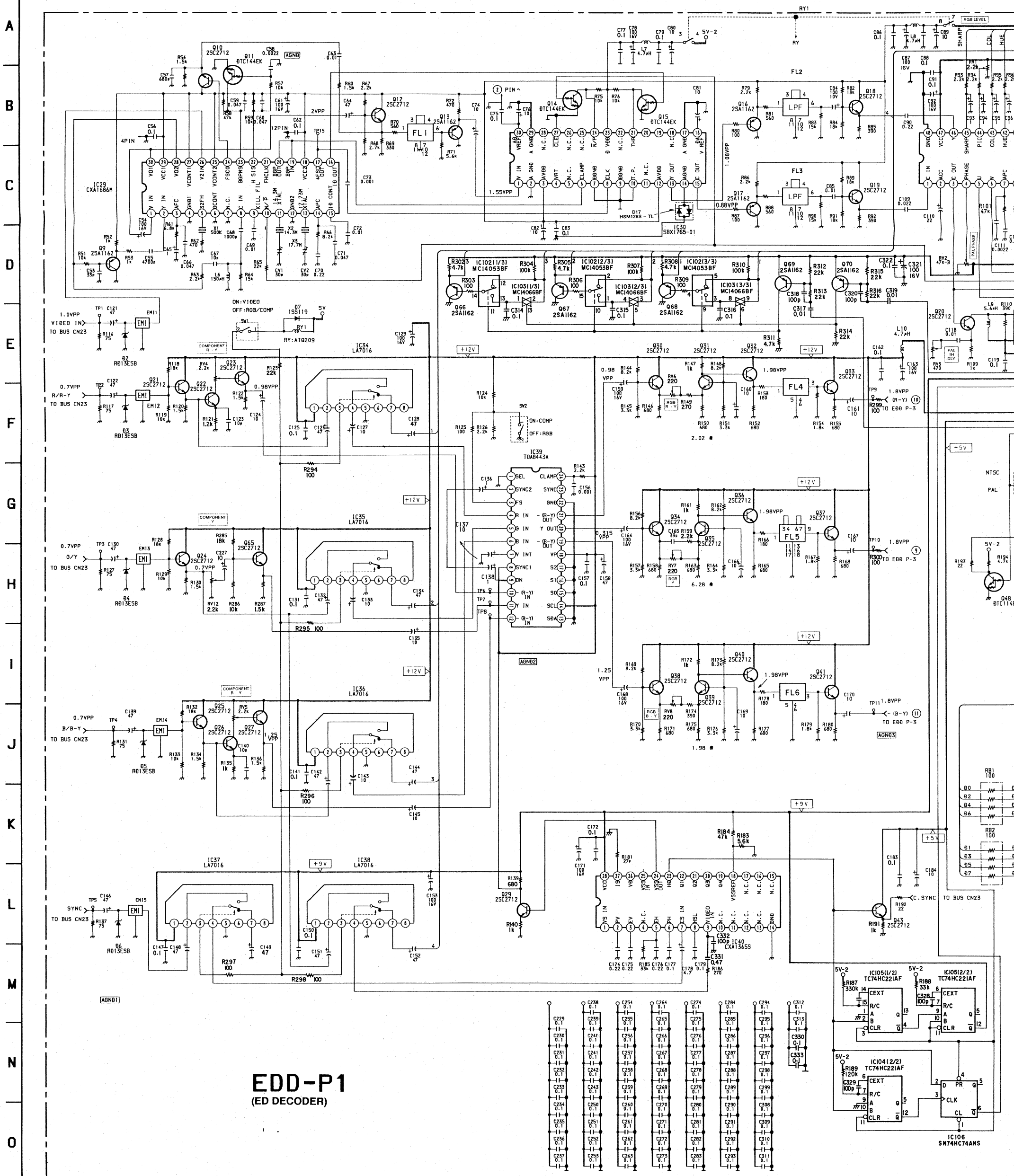
EDD Board–B side
EDD 基板（B 面側）

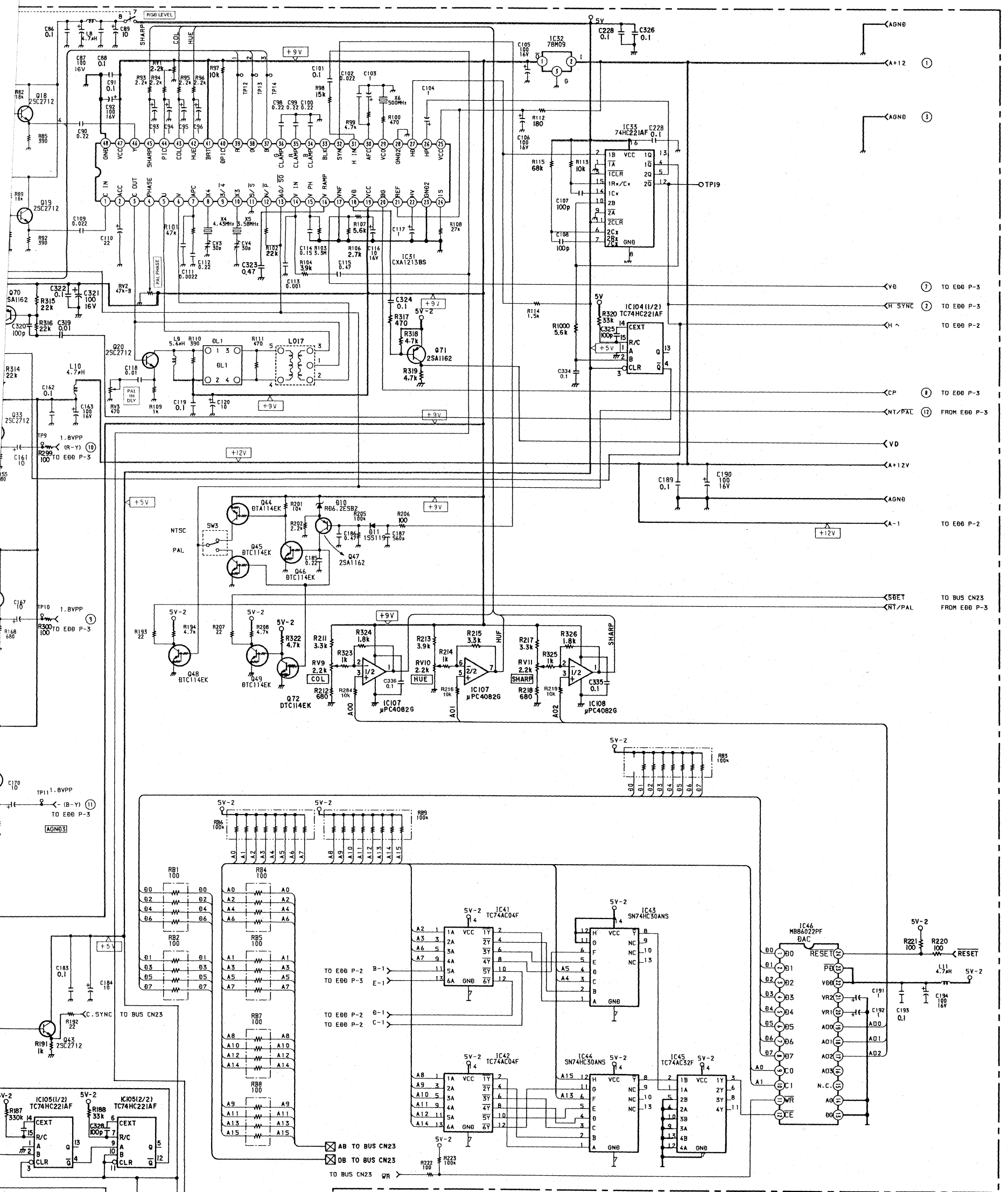
IC	
IC30	J-3
IC31	F-1
IC39	B-7
IC40	D-7
DIODE	
D1	T-2
D2	F-9
D3	A-12
D4	B-12
D5	C-12
D6	D-12
D7	F-3
D10	A-2
D11	A-2
D12	Q-2
D13	L-2
VARIABLE RESISTOR	
RV1	H-1
RV2	D-1
RV3	A-2
RV4	A-11
RV5	C-11
RV6	A-5
RV7	B-5
RV8	C-5
RV9	F-10
RV10	F-11
RV11	F-11
RV12	B-11

- ▒▒▒: Pattern from the side which enables
- ▒▒▒: Pattern of the rear side.
- ▒▒▒: は見た面側のパターン。
- ▒▒▒: は裏側のパターン。

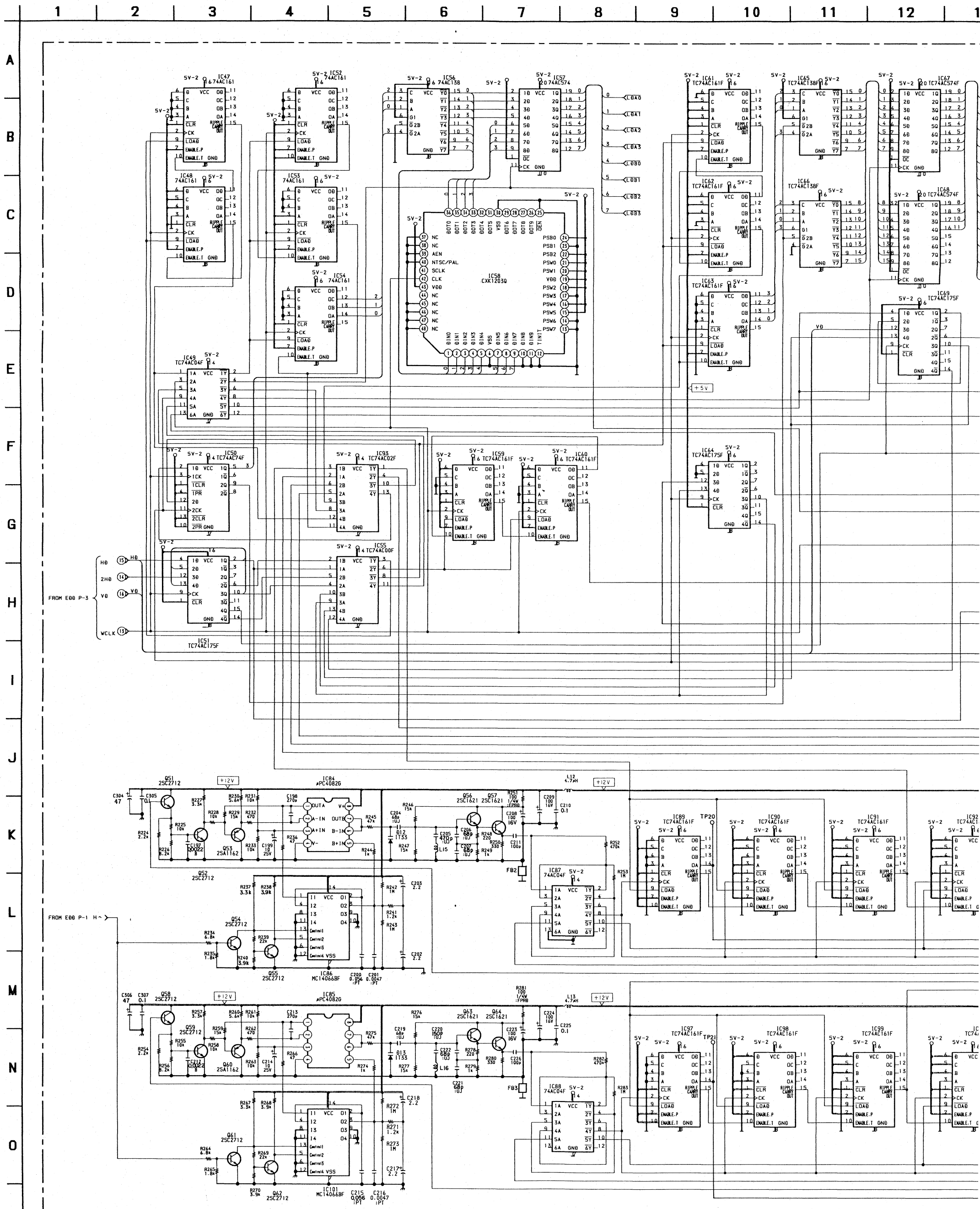
SCHEMATIC DIAGRAM – EDD BOARD (1/3) –

EDD（1/3）基板回路図

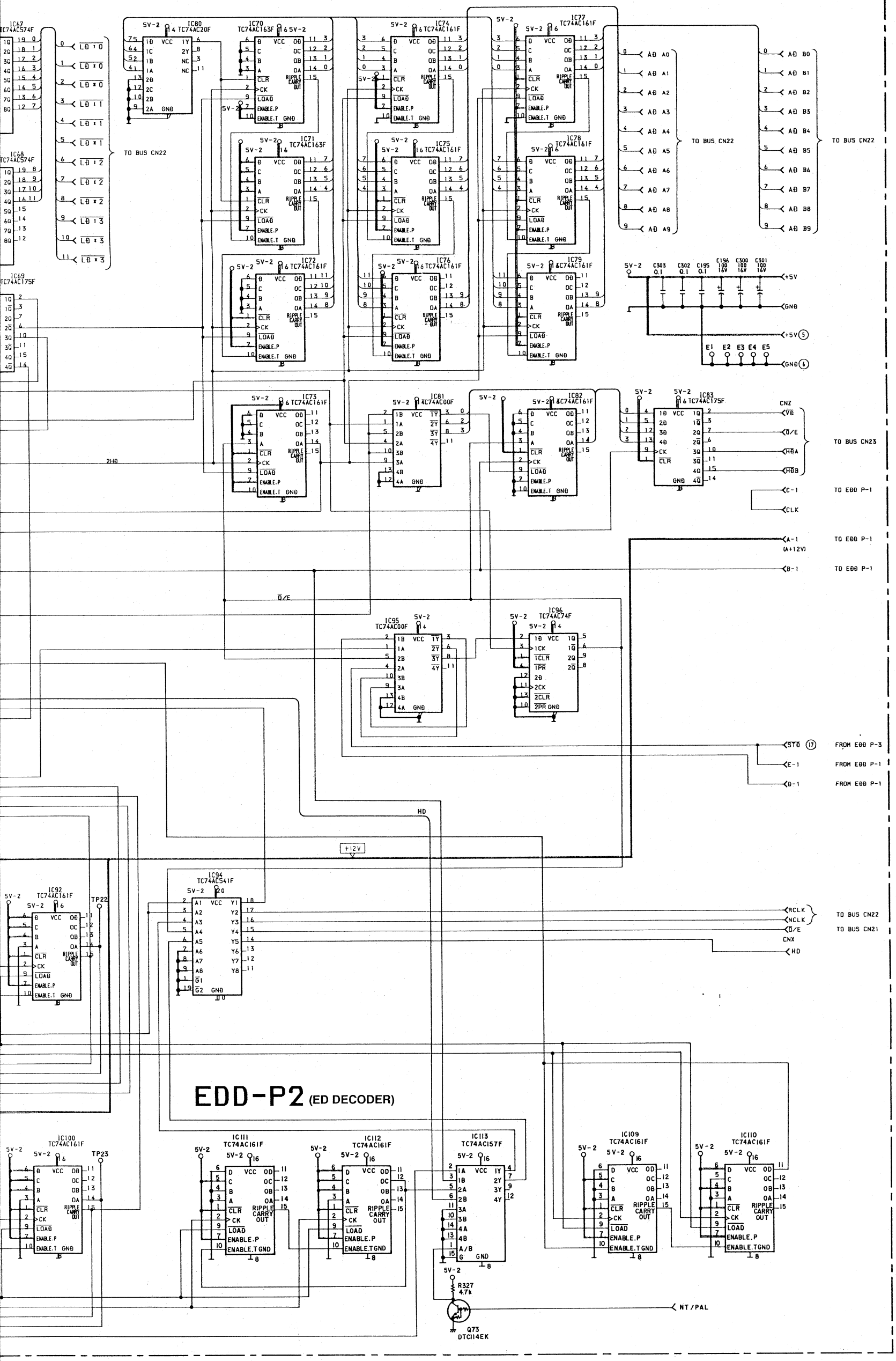



RGB LEVEL
SHARP
COL
HUE
+9V
+12V
+5V
5V
5V-2
AGND
A+12
AGND
VD
A+12V
AGND
A-1
TO E00 P-2
5RET
TO BUS CN23
NT/PAL
FROM E00 P-3
VD
TO E00 P-3
H SYNC
TO E00 P-3
H ^
TO E00 P-2
CP
TO E00 P-3
NT/PAL
FROM E00 P-3
IC31 CXA1213BS
IC32 78M09
IC33 74HC221AF
IC104(1/2) TC74HC221AF
IC104(2/2) TC74HC221AF
IC105(1/2) TC74HC221AF
IC105(2/2) TC74HC221AF
IC106 SN74HC74ANS
IC107 µPC4082G
IC108 µPC4082G
IC41 TC74AC04F
IC42 TC74AC04F
IC43 SN74HC30ANS
IC44 SN74HC30ANS
IC45 TC74AC32F
IC46 MB84022PF
TP9 1.8VPP (R-Y)
TP10 1.8VPP
TP11 1.8VPP (B-Y)
NTSC
PAL
SW3
C.SYNC TO BUS CN23
AB TO BUS CN23
DB TO BUS CN23
TO BUS CN23 WR
RESET
TO E00 P-2 B-1
TO E00 P-3 E-1
TO E00 P-2 D-1
TO E00 P-2 C-1

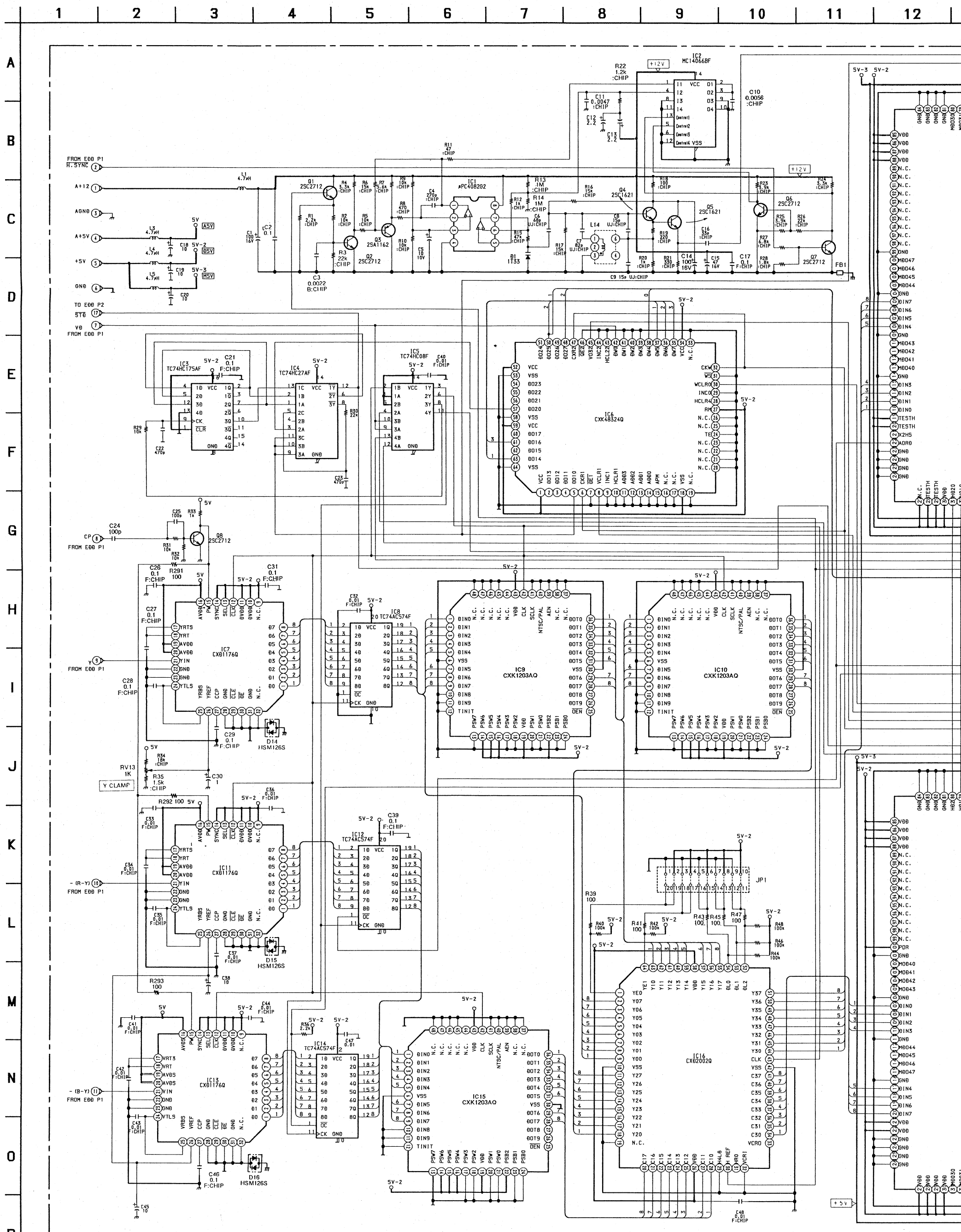
SCHEMATIC DIAGRAM – EDD BOARD (2/3) –
EDD (2/3) 基板回路図



EDD-P2 (ED DECODER)



SCHEMATIC DIAGRAM – EDD BOARD (3/3) –
EDD（3/3）基板回路図



EDD-P3
(ED DECODER)

IC17 SNY-3076 Y

IC18 SNY-3077 C-Y

IC19 SN74AS1004ANS

IC20 TC74AC541F

IC21 SN74HC04ANS

IC22 TC74AC574F

IC23 TC74AC574F

IC24 TC74AC574F

IC25 TC74AC574F

IC26 TC74HC564AF

IC27 TC74HC564AF

IC28 TC74ACT74F

JP1

Q6 2SC2712

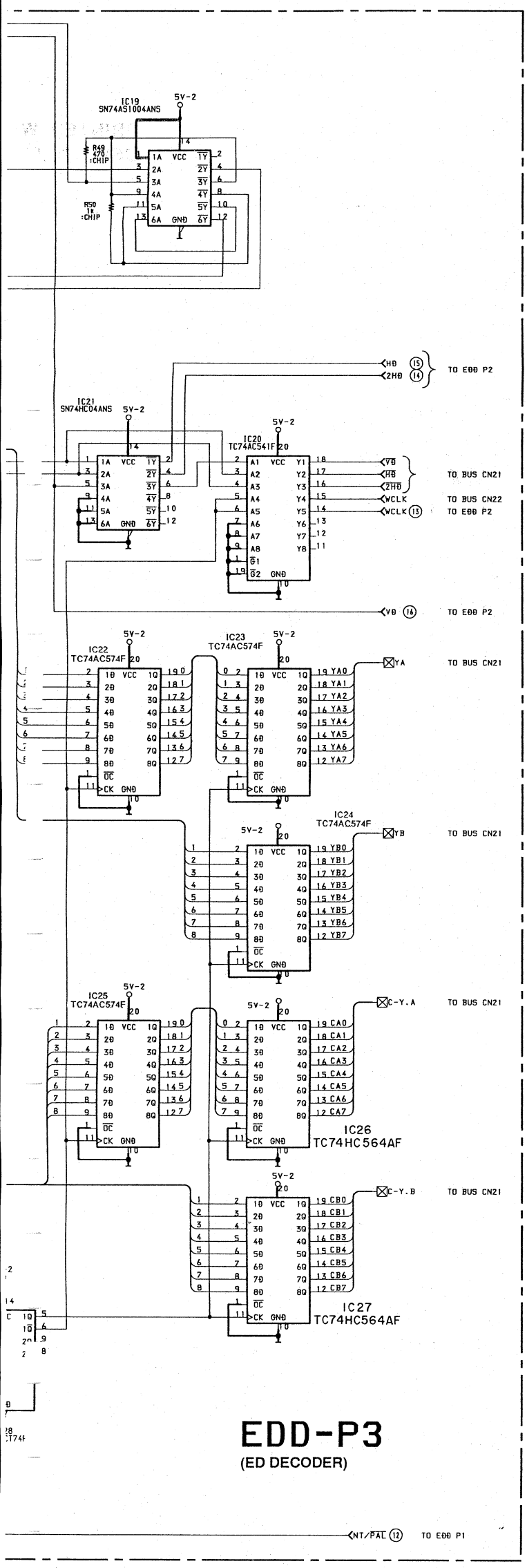
Q7 2SC2712

TO BUS CN21

TO BUS CN22

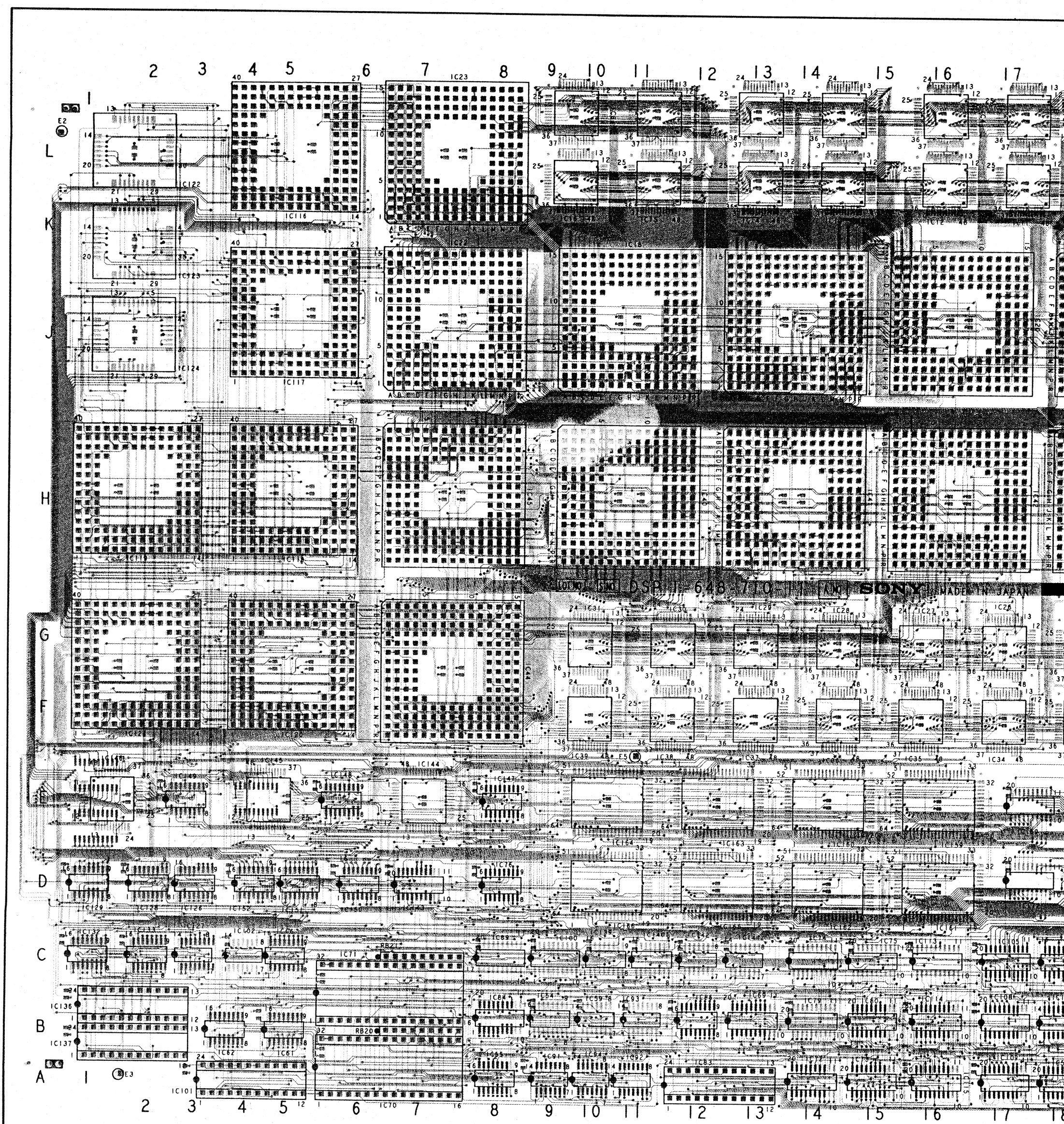
TO E00 P2

TO E00 P1

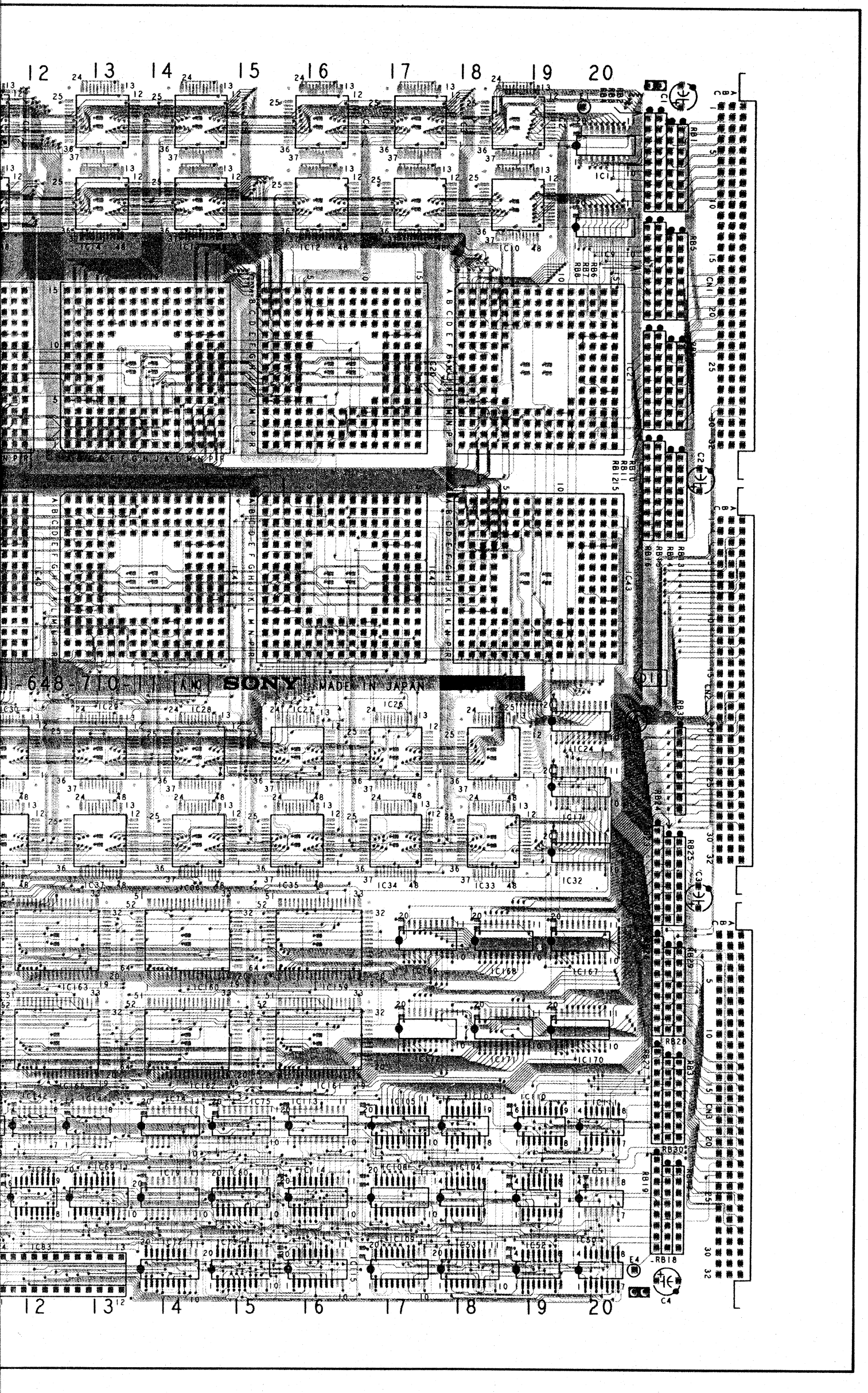


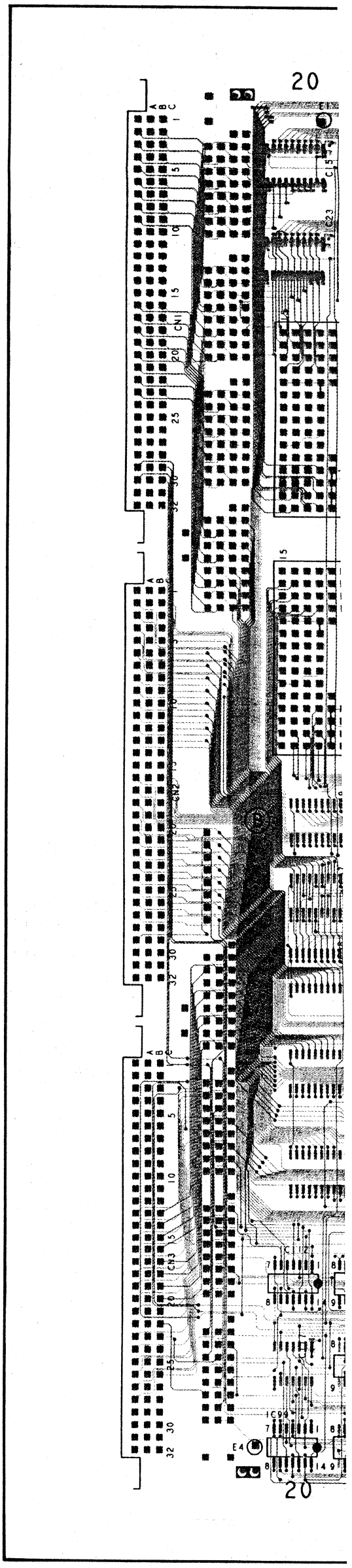
EDD-P3
(ED DECODER)

PRINTED WIRING BOARD – DSP BOARD (A side) –
DSP 基板プリント図（A 面側）

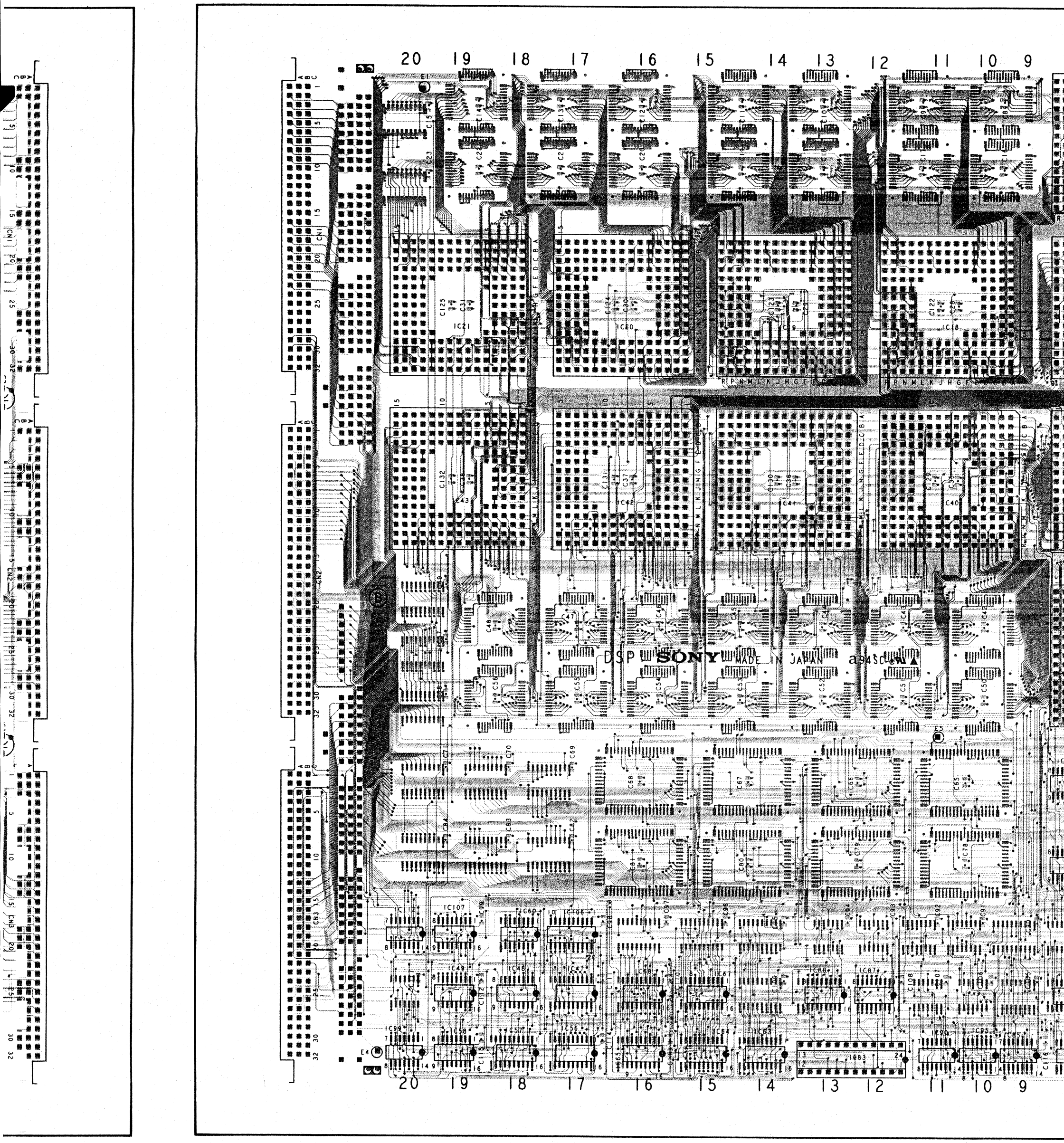


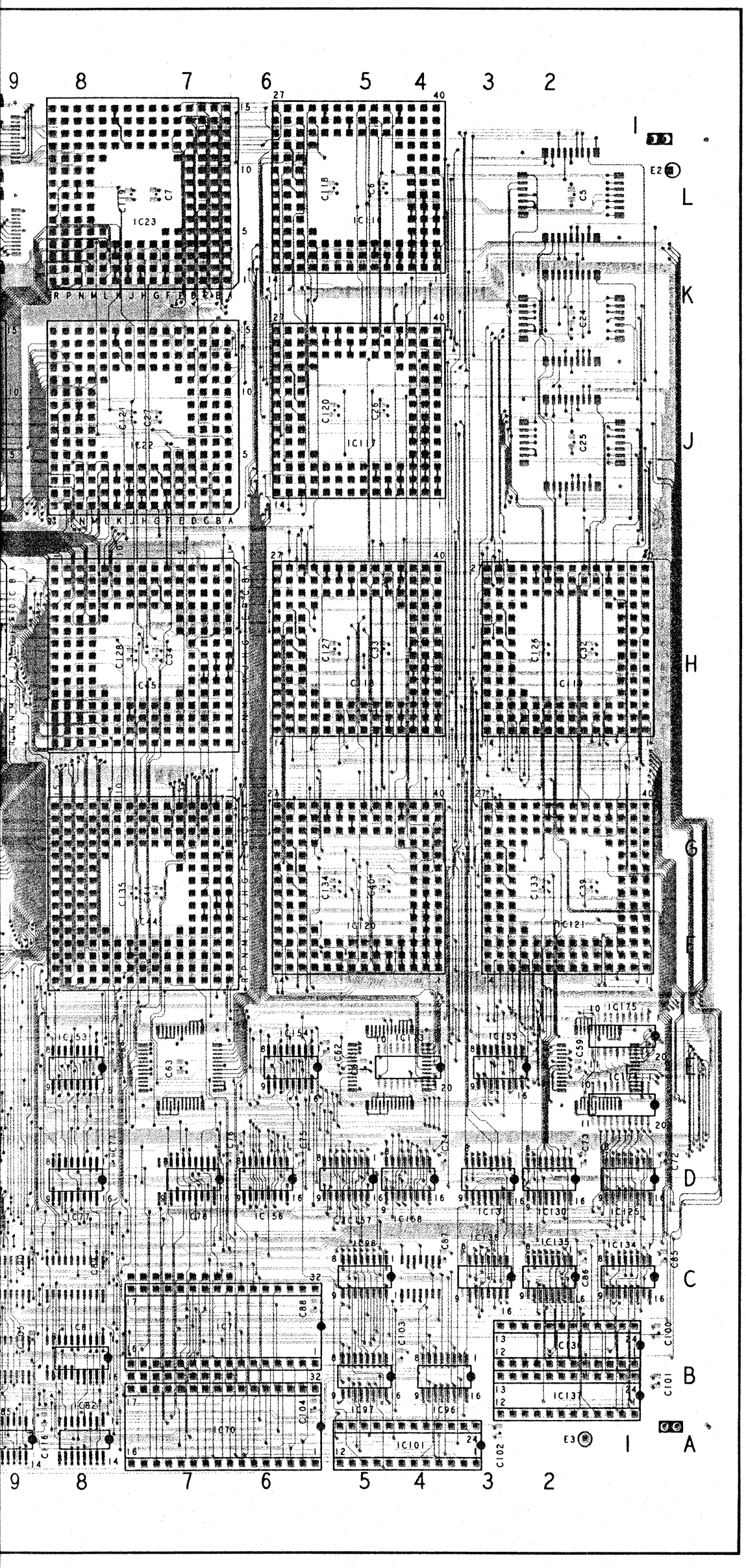
PRINTED WIRING BOARD – DSP B
DSP 基板プリント図（B面側）





PRINTED WIRING BOARD – DSP BOARD (B side) –
DSP 基板プリント図（B 面側）





DSP Board–A side
DSP 基板（A面側）

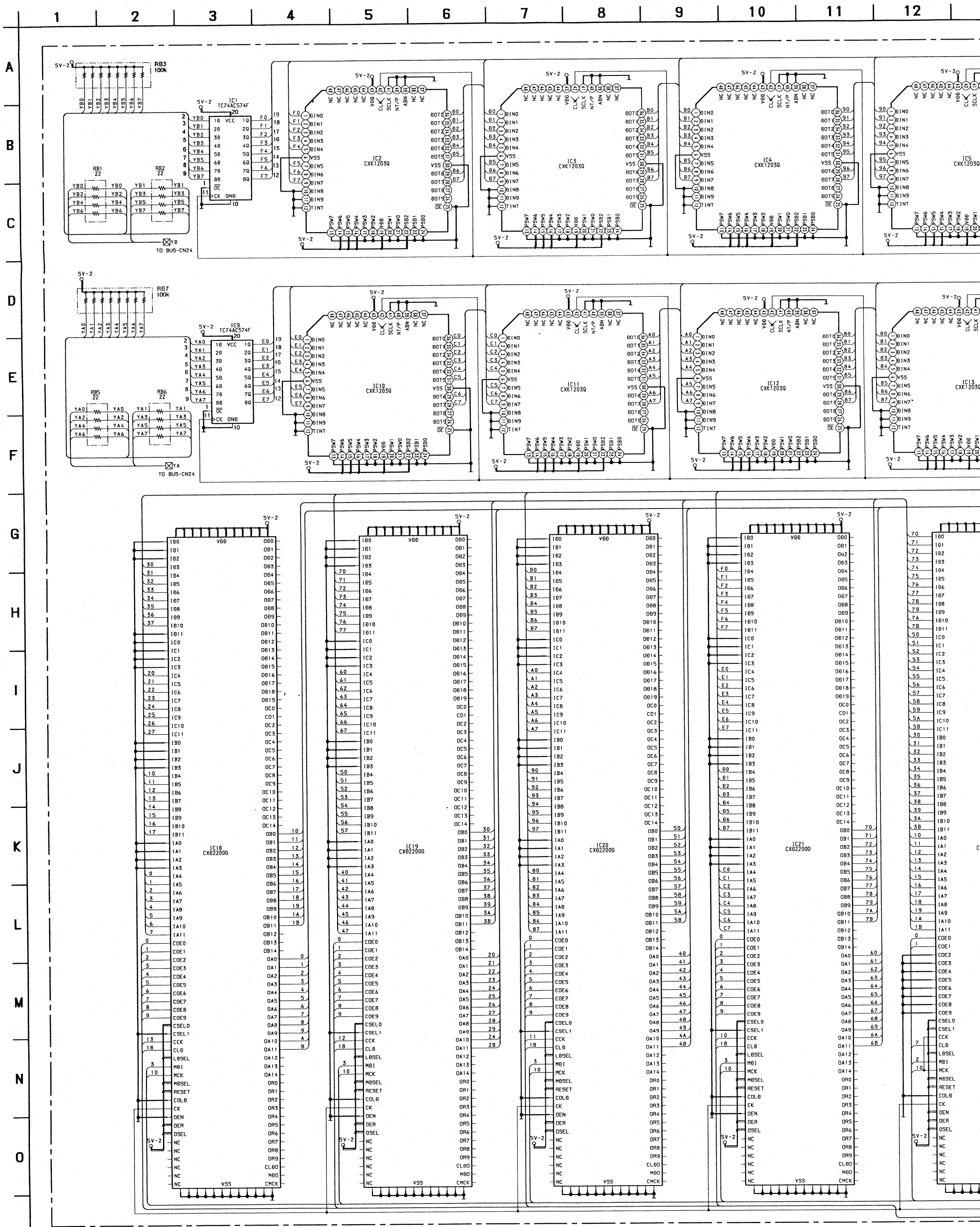
IC		IC		IC	
IC1	L-20	IC80	B-15	IC18	J-11
IC2	L-19	IC84	B-8	IC19	J-14
IC3	L-17	IC86	B-12	IC20	J-16
IC4	L-16	IC89	C-8	IC21	J-19
IC5	L-14	IC91	A-9	IC22	J-7
IC6	L-13	IC92	A-11	IC23	L-7
IC7	L-11	IC93	B-11	IC40	H-11
IC8	L-10	IC94	A-10	IC41	H-14
IC9	K-20	IC100	C-9	IC42	H-16
IC10	K-19	IC101	A-4	IC43	H-19
IC11	K-17	IC102	C-4	IC44	G-7
IC12	K-16	IC103	C-18	IC45	H-7
IC13	K-14	IC104	B-18	IC46	B-19
IC14	K-13	IC105	C-17	IC50	A-20
IC15	K-11	IC108	B-17	IC51	B-20
IC16	K-10	IC109	A-17	IC52	B-19
IC17	G-20	IC110	C-19	IC53	B-18
IC18	J-11	IC111	C-20	IC54	B-9
IC19	J-14	IC113	C-16	IC55	A-8
IC20	J-16	IC114	B-16	IC59	B-10
IC21	J-19	IC115	A-16	IC61	B-5
IC22	J-7	IC116	L-5	IC62	B-3
IC23	L-7	IC117	J-5	IC66	C-5
IC24	G-20	IC118	H-5	IC69	B-13
IC25	G-18	IC119	H-2	IC70	A-6
IC26	G-17	IC120	G-5	IC71	B-6
IC27	G-16	IC121	G-2	IC72	A-14
IC28	G-14	IC122	L-2	IC73	A-15
IC29	G-13	IC123	K-2	IC74	C-14
IC30	G-12	IC124	J-2	IC75	C-15
IC31	G-10	IC126	D-3	IC76	D-8
IC32	F-20	IC127	C-3	IC79	B-14
IC33	F-18	IC128	D-2		
IC34	F-17	IC129	D-1		
IC35	F-16	IC132	C-1		
IC36	F-14	IC133	C-2		
IC37	F-13	IC136	B-1		
IC38	F-12	IC137	B-1		
IC39	F-10	IC139	C-10		
IC40	H-11	IC140	C-11		

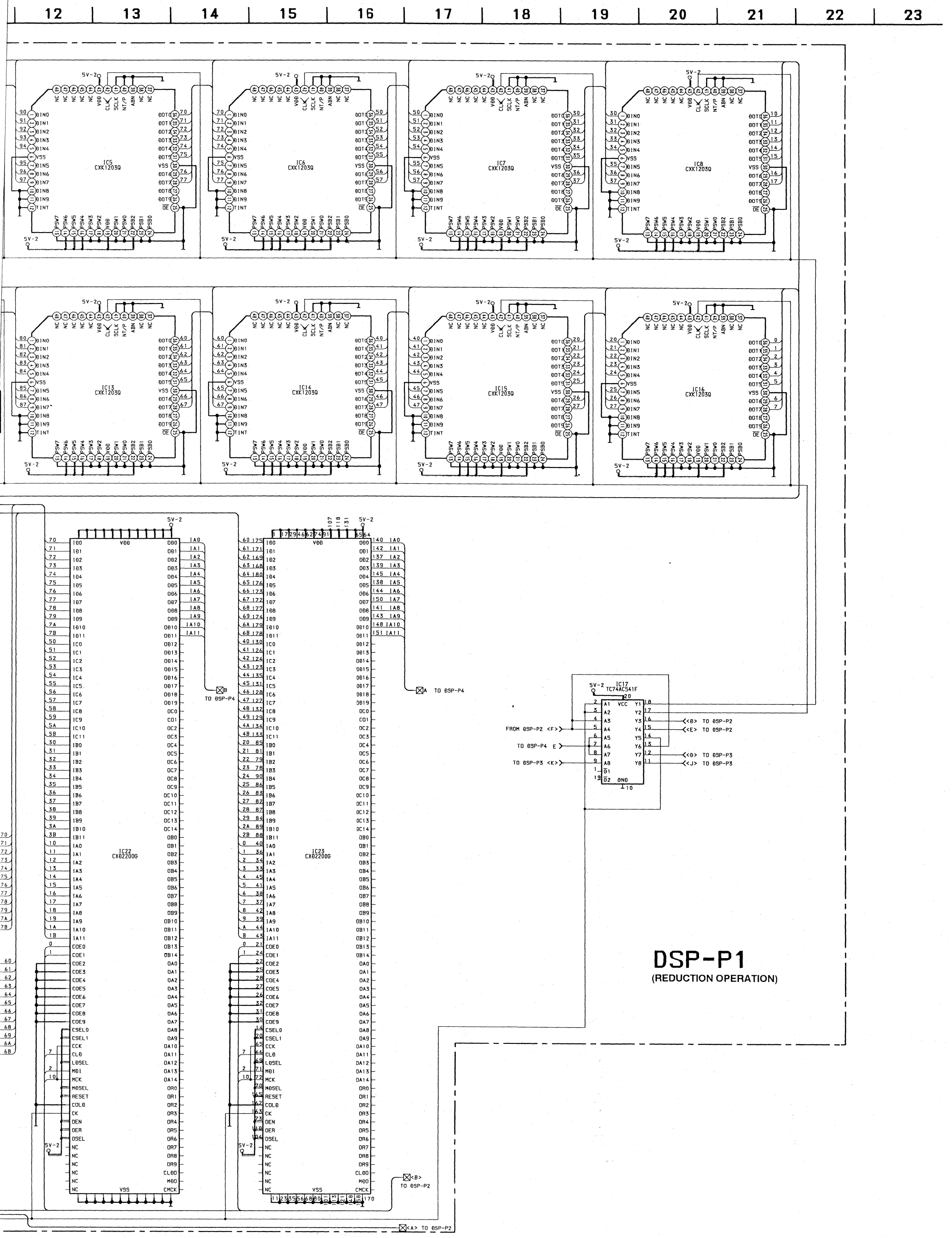
DSP Board–B sid
DSP 基板（B面側

IC	
IC18	J-11
IC19	J-14
IC20	J-16
IC21	J-19
IC22	J-7
IC23	L-7
IC40	H-11
IC41	H-14
IC42	H-16
IC43	H-19
IC44	G-7
IC45	H-7
IC47	B-17
IC48	B-18
IC49	B-19
IC56	A-17
IC57	A-18
IC58	A-19
IC60	C-18
IC63	A-14
IC64	A-15
IC65	A-16
IC67	B-15
IC68	B-16
IC70	A-6
IC71	B-6
IC77	D-8
IC78	D-7
IC81	B-8
IC82	A-8
IC83	A-12
IC85	A-9
IC87	B-12
IC88	B-13
IC90	A-11
IC95	A-10
IC96	B-4
IC97	B-5
IC98	C-5
IC99	A-20
IC101	A-4
IC106	C-17
IC107	C-19
IC112	C-20
IC116	L-5
IC117	J-5
IC118	H-5
IC119	H-2
IC120	G-5
IC121	G-2
IC125	D-1
IC130	D-2
IC131	D-3
IC134	C-1
IC135	C-2
IC136	B-1
IC137	B-1
IC138	C-3
IC153	E-8
IC154	E-6
IC155	E-3
IC156	D-6
IC157	D-5
IC158	D-4
IC173	E-4
IC174	E-1
IC175	E-1

- ▒▒▒: Pattern from the side which enables seei
- ▒▒▒: Pattern of the rear side.
- ▒▒▒: は見た面側のパターン。
- ▒▒▒: は裏側のパターン。

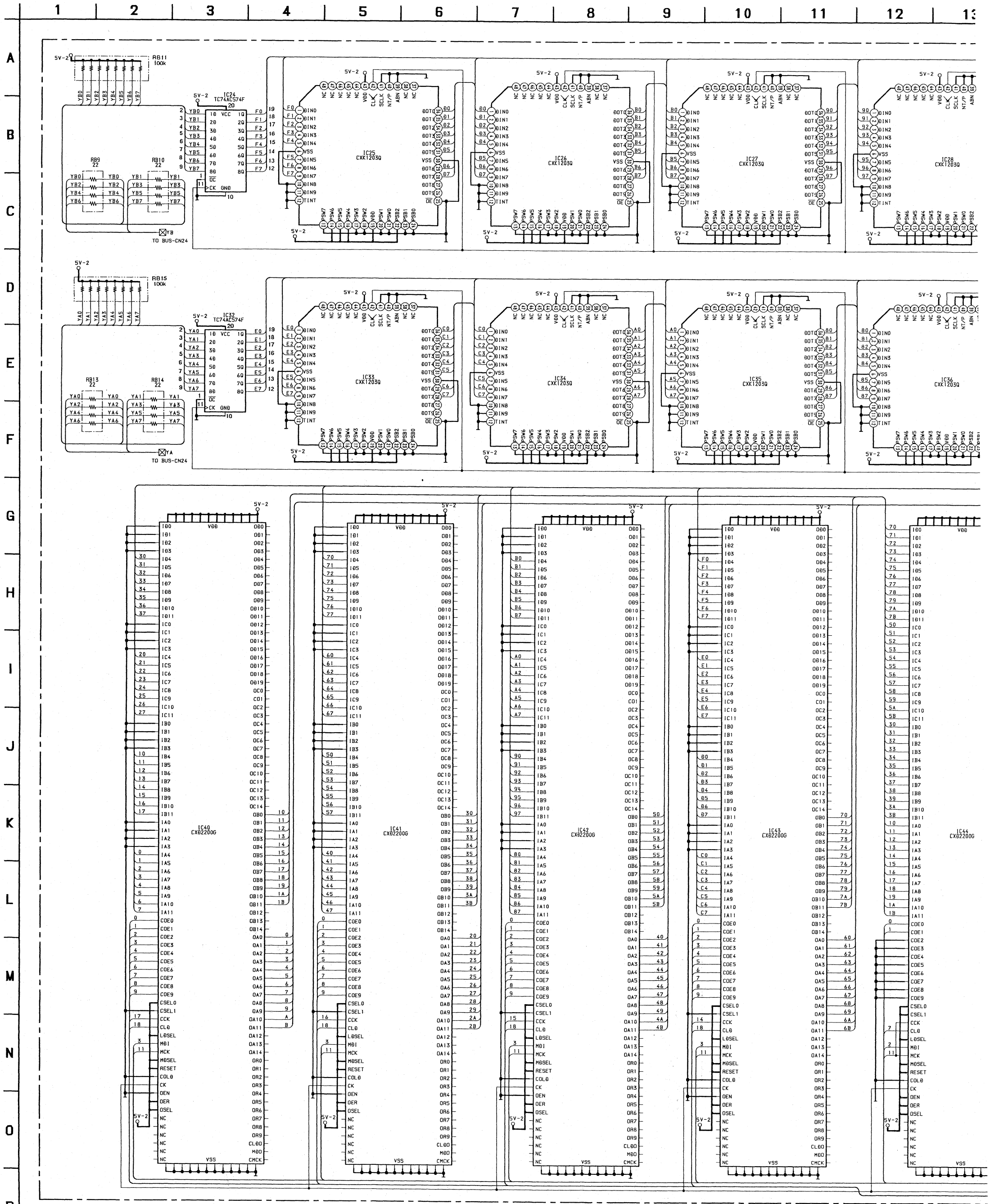
SCHEMATIC DIAGRAM – DSP BOARD (1/4) –
DSP（1/4）基板回路図





DSP-P1
(REDUCTION OPERATION)

SCHEMATIC DIAGRAM – DSP BOARD (2/4) –
DSP（2/4）基板回路図



13 14 15 16 17 18 19 20 21 22 23

IC28 CXK1203Q
IC29 CXK1203Q
IC30 CXK1203Q
IC31 CXK1203Q
IC36 CXK1203Q
IC37 CXK1203Q
IC38 CXK1203Q
IC39 CXK1203Q
IC44 CXD2200G
IC45 CXD2200G

5V-2

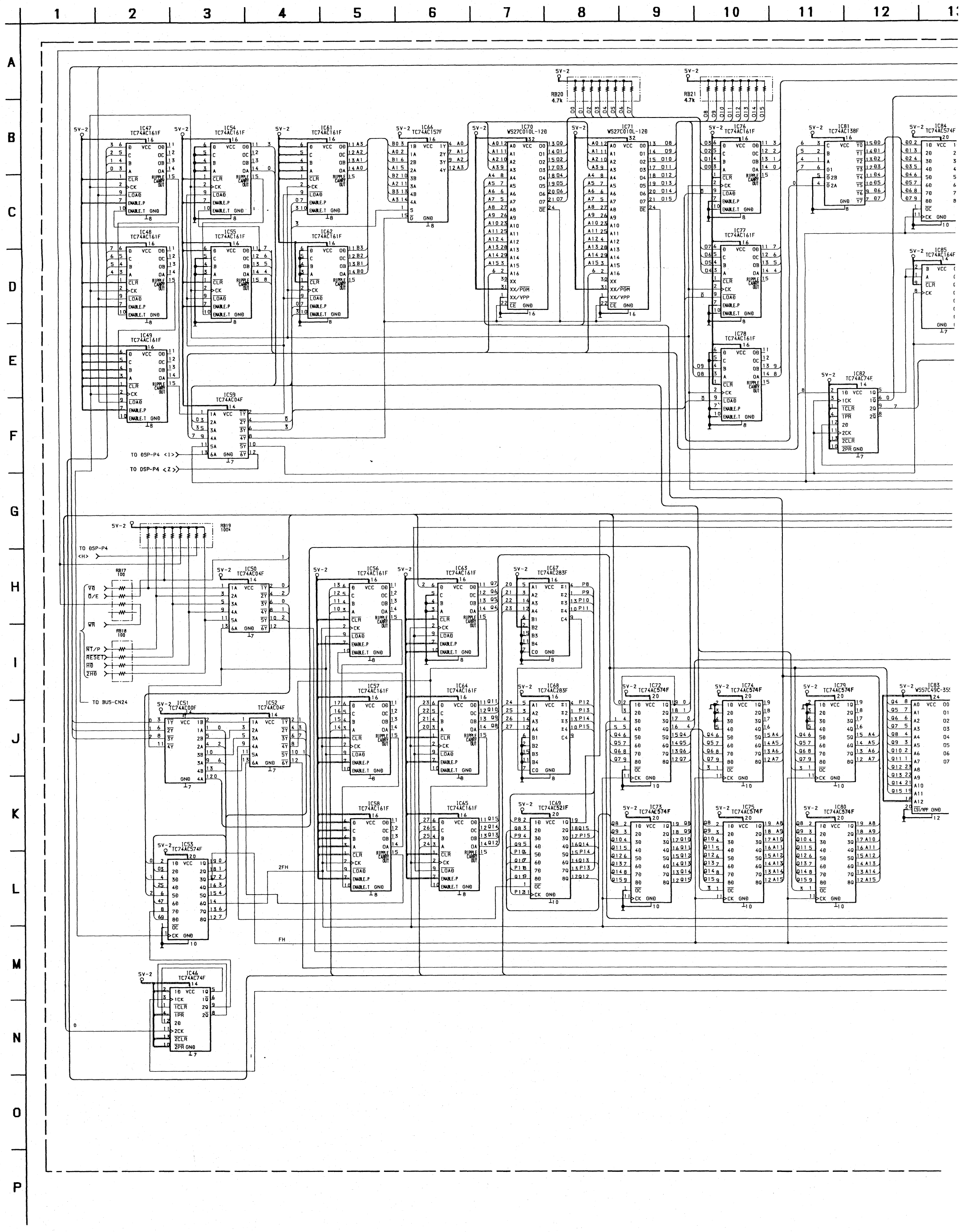
<B> TO 0SP-P4
<C> TO 0SP-P4
<8> TO 0SP-P1
<E> TO 0SP-P1
<B> TO 0SP-P3
<A> TO 0SP-P3
<F> TO 0SP-P1

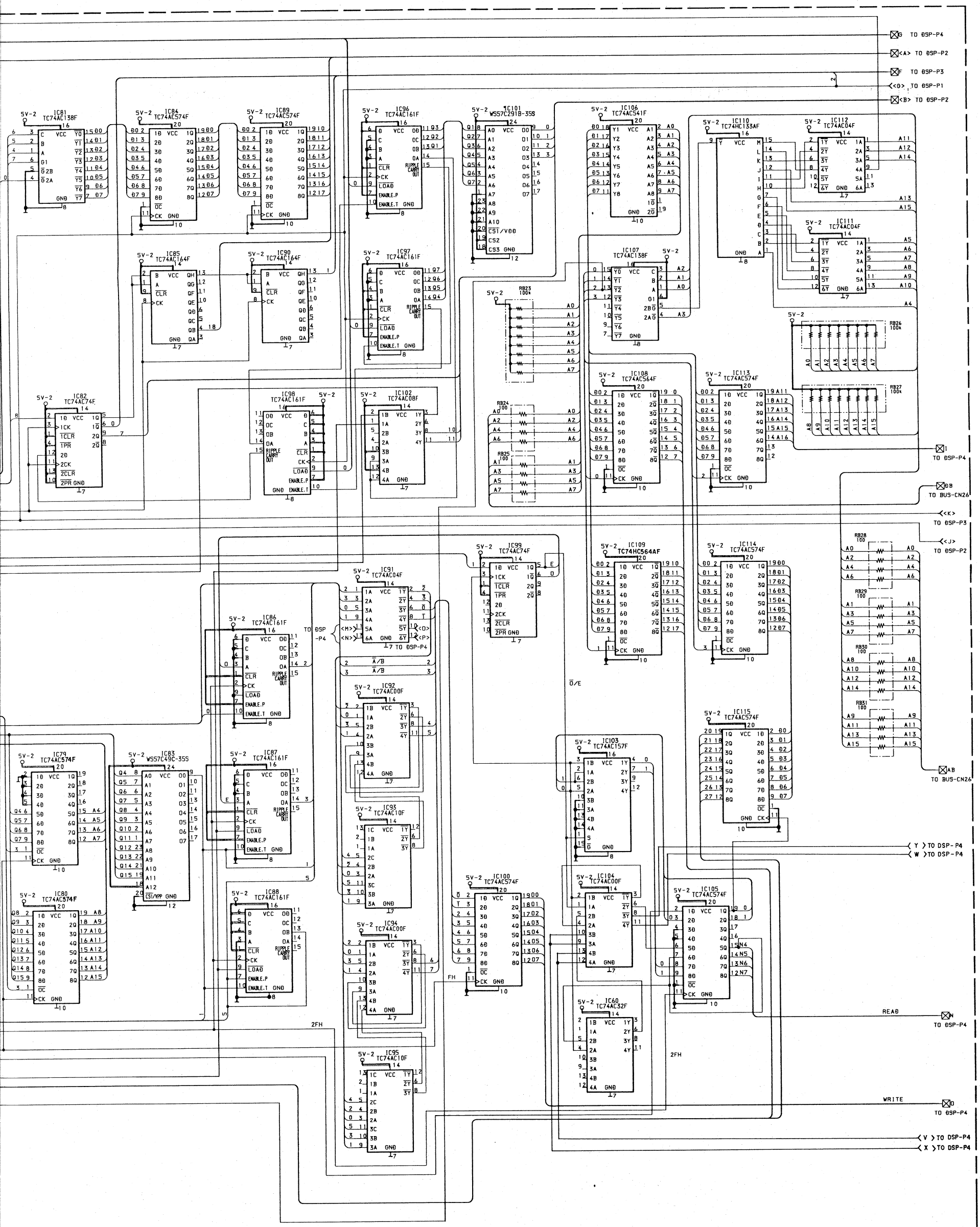
TP1 TP2 TP3 TP4

C1 100/16V
C2 100/16V
C3 100/16V
C4 100/16V

DSP-P2
(REDUCTION OPERATION)

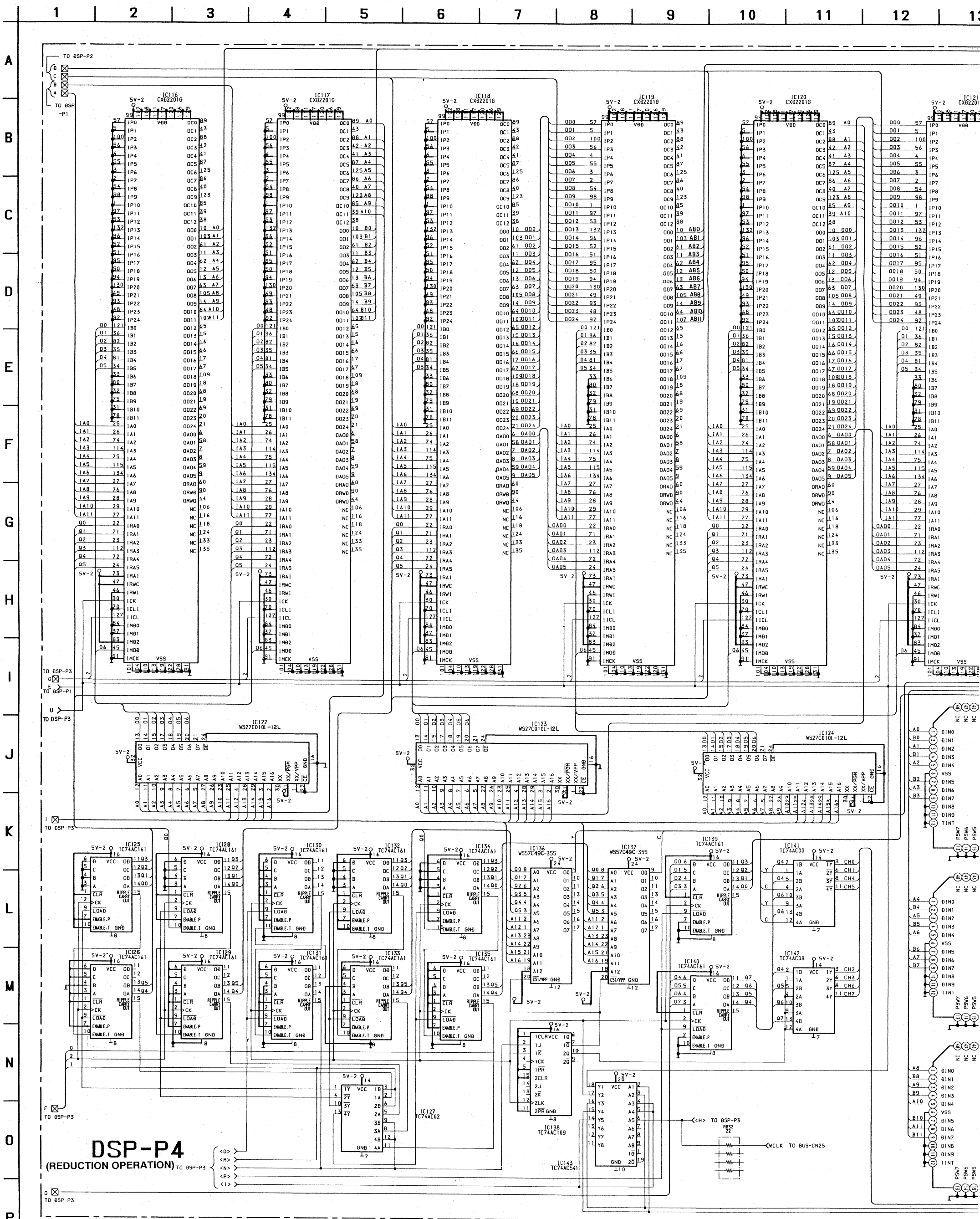
SCHEMATIC DIAGRAM – DSP BOARD (3/4) –
DSP（3/4）基板回路図

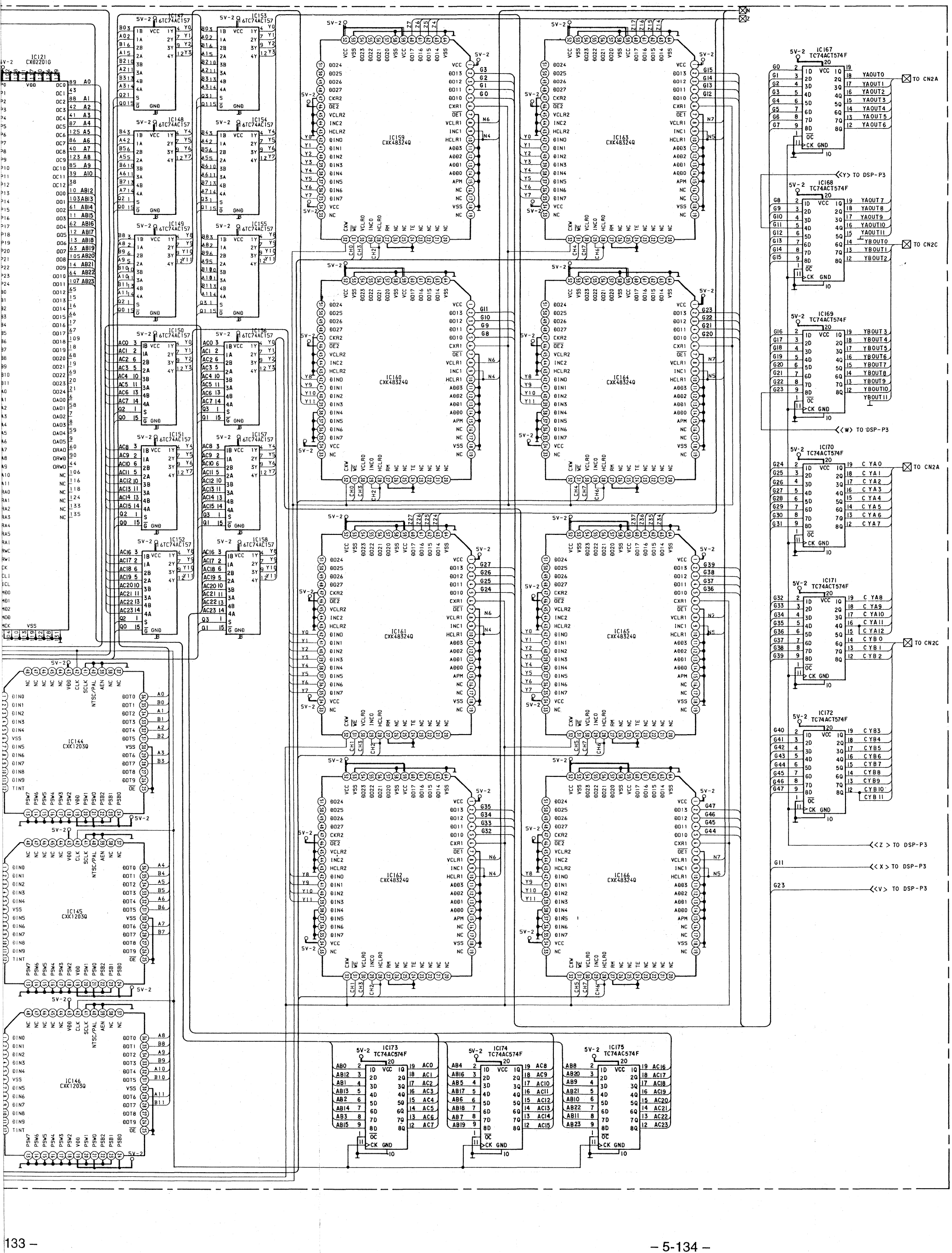




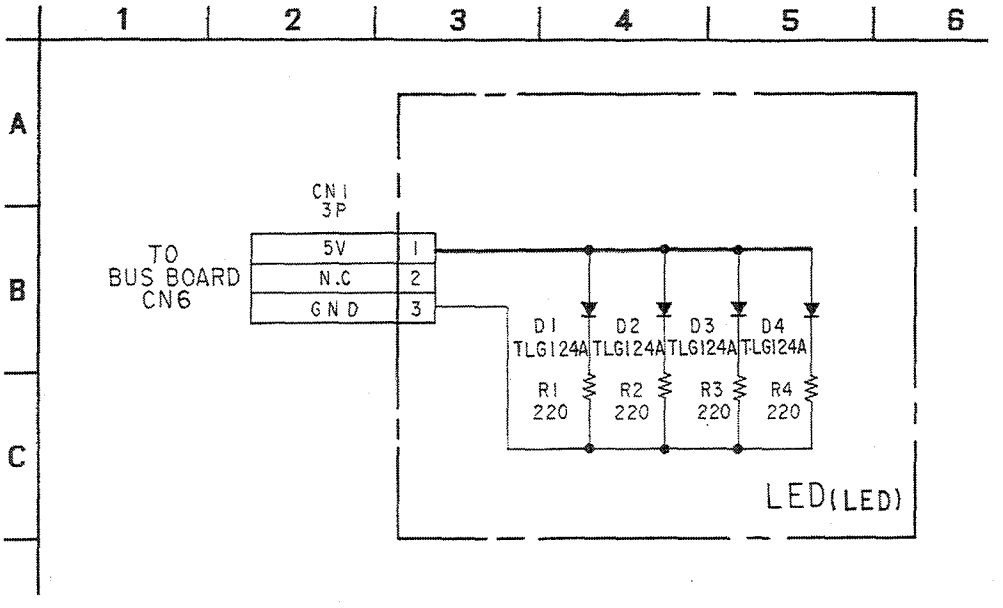
DSP-P3
(REDUCTION OPERATION)

SCHEMATIC DIAGRAM – DSP BOARD (4/4) –
DSP（4/4）基板回路図

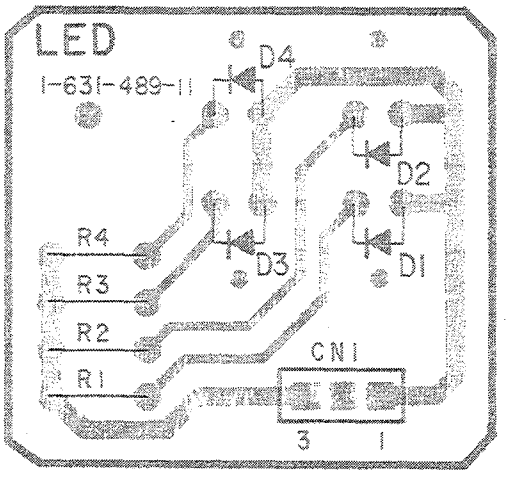



IC121 CXD2201G
IC147 IC148 IC149 IC150 IC151 IC152 IC153 IC154 IC155 IC136 IC157 IC158 TC74AC157
IC159 IC160 IC161 IC162 IC163 IC164 IC165 IC166 CXK48324Q
IC144 IC145 IC146 CXK1203Q
IC167 IC168 IC169 IC170 IC171 IC172 TC74ACT574F
IC173 IC174 IC175 TC74AC574F
5V-2
TO CN2A
TO CN2C
<Y> TO DSP-P3
<W> TO DSP-P3
<Z > TO DSP-P3
<X > TO DSP-P3
<V > TO DSP-P3

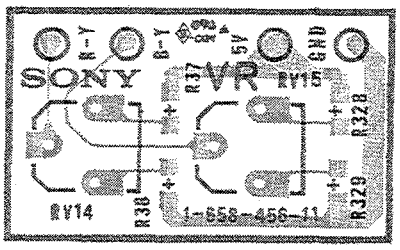
SCHEMATIC DIAGRAM – LED BOARD –
LED 基板回路図



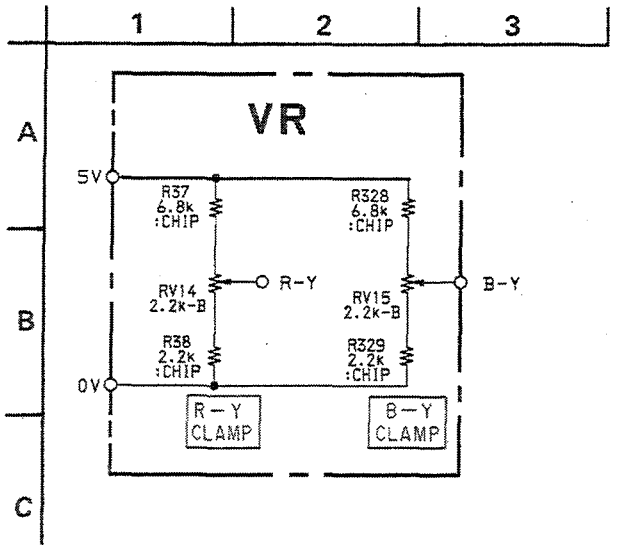
PRINTED WIRING BOARD – LED BOARD –
LED 基板プリント図



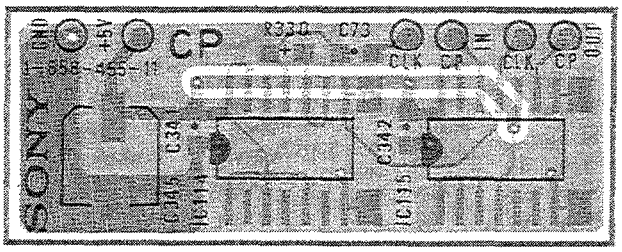
PRINTED WIRING BOARD – VR BOARD –
VR 基板プリント図



SCHEMATIC DIAGRAM – VR BOARD –
VR 基板回路図

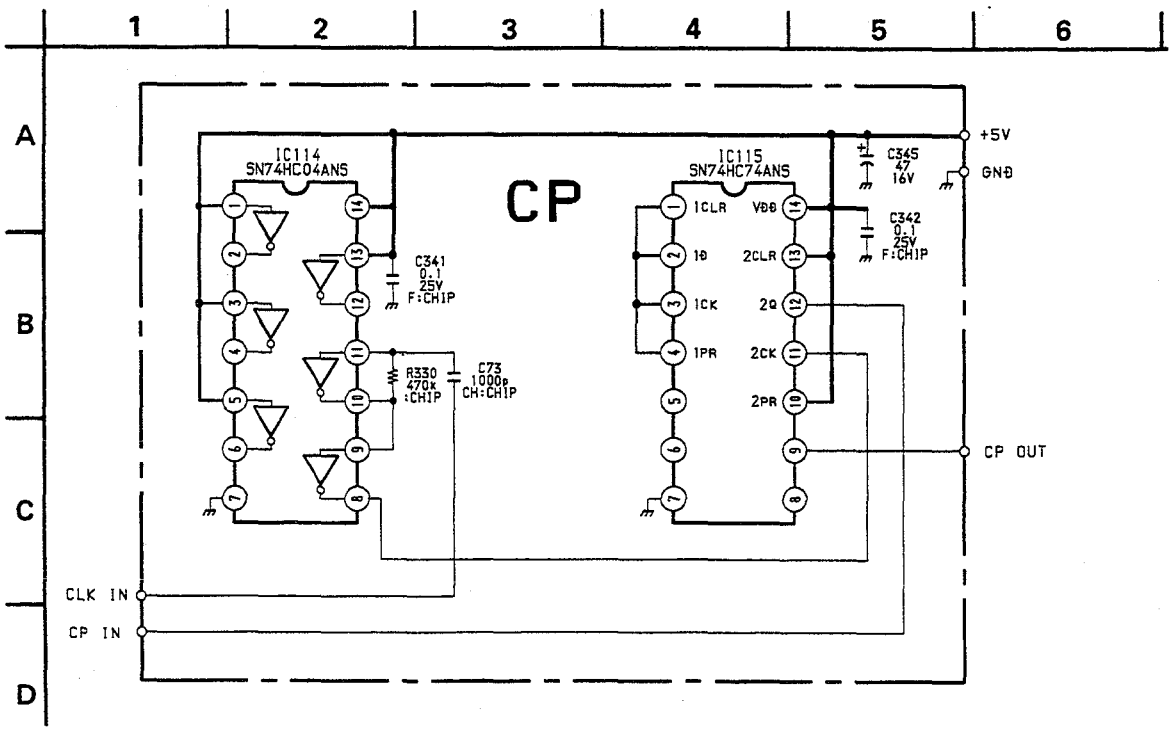


PRINTED WIRING BOARD – CP BOARD –
CP 基板プリント図



- ▒▒▒▒: Pattern from the side which enables seeing.
- ▒▒▒▒: Pattern of the rear side.
- ▒▒▒▒: は見た面側のパターン。
- ▒▒▒▒: は裏側のパターン。

SCHEMATIC DIAGRAM – CP BOARD –
CP 基板回路図



SECTION 6. EXPLODED VIEWS

6. 分解図

NOTE:
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

【使用上の注意】

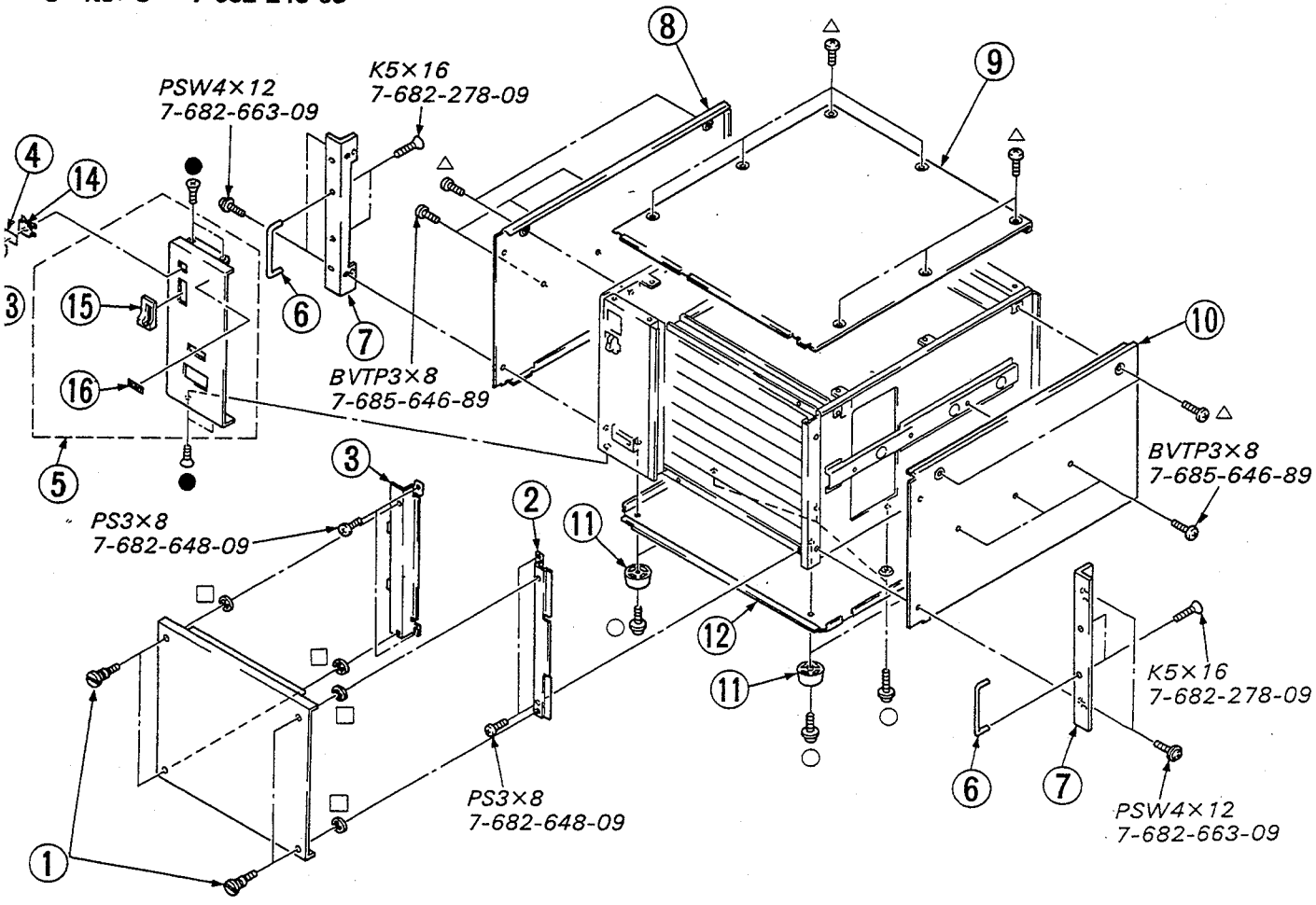
- 組立部品の構成部品は備考欄に図面番号で示します。
- * 印の部品は常備在庫しておりません。
  受注して供給できるまで、日数を要します。
- 分解図中の機構部品で、図面番号のない部品は供給しません。

⚠および▒印の部品は、安全性を維持するために、重要な部品です。従って交換時は、必ず指定の部品を使用して下さい。

6-1. パネル部

6-1. PANEL SECTION

○ : PSW 3×12 7-682-650-09
□ : STOP RING 7.0 TYPE-E 7-624-111-04
△ : B3×8 7-682-548-09
● : K3×8 7-682-248-09

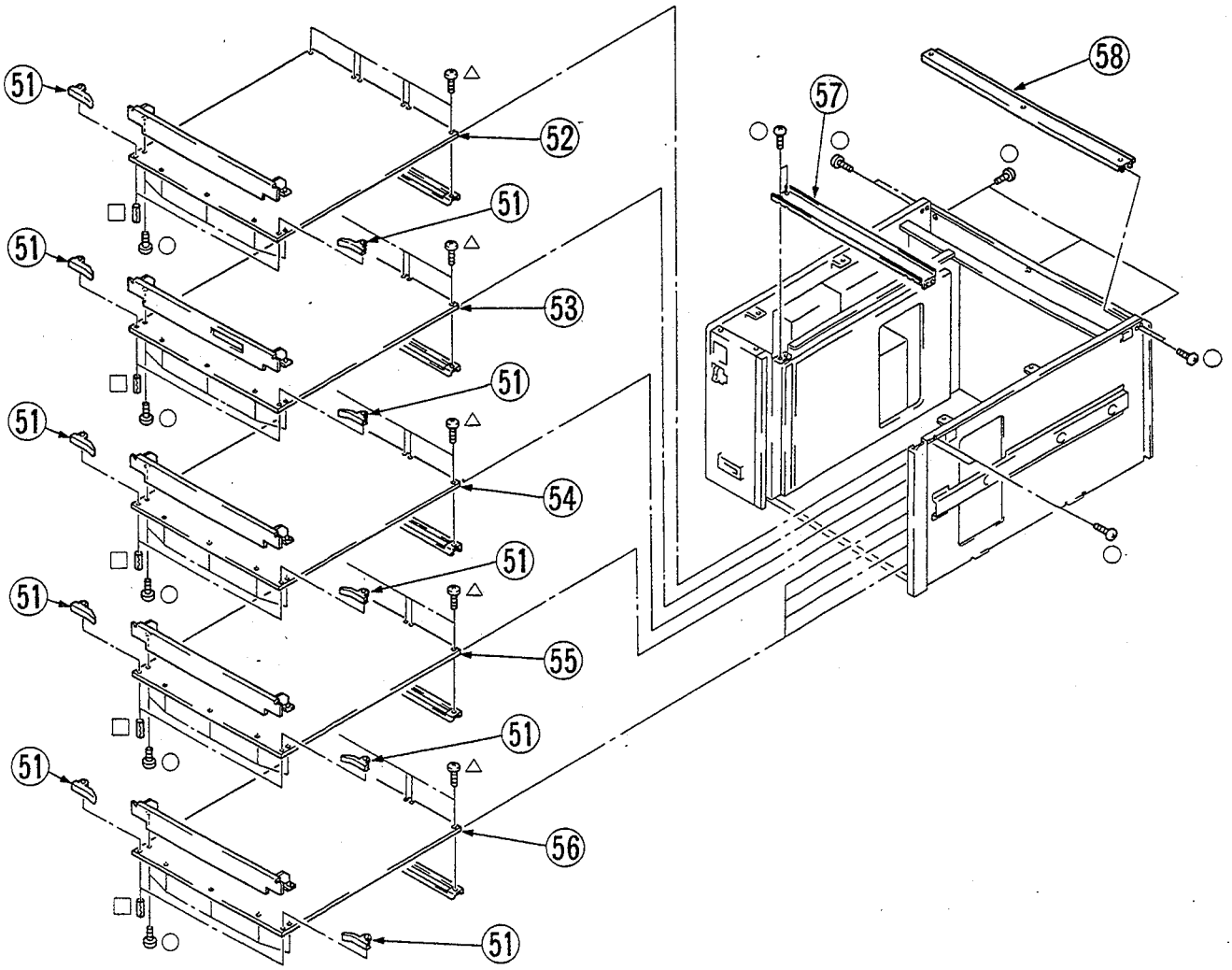


REF.NO.	PART NO.	DESCRIPTION	REMARK
1	*3-181-862-01	STOPPER, PANEL	
2	*3-181-865-01	STOPPER (R), PKG	
3	*3-181-866-01	STOPPER (L), PKG	
4	2-249-353-00	COVER, LAMP	
5	*X-3167-254-1	PANEL (L) ASSY, FRONT (JTC-P110/JTC-P110B)	
5	X-4033-611-1	PANEL (L) ASSY, FRONT (JTC-P110C)	
6	2-378-801-01	HANDLE	
7	*3-181-864-01	ANGLE	
8	*3-181-879-01	COVER (L), SIDE	
9	*3-181-881-01	COVER, TOP (JTC-P110/P110B)	
9	*3-181-881-11	COVER, TOP (JTC-P110C)	
10	*3-181-880-01	COVER (R), SIDE	
11	X-4855-804-0	FOOT ASSY, MF	
12	*3-181-878-01	COVER, BOTTOM	
13	2-139-193-02	WINDOW, INDICATOR	
14	2-139-192-01	FRAME, INDICATOR WINDOW	
15	2-251-642-01	GUARD POWER SWITCH	
16	3-897-070-01	EMBLEM (NO.5), SONY	

6-2. 基板部

6-2. MAIN SECTION

○ : BVTP3×8 TYPE2 IT-3 7-685-646-79
□ : PIN, SPRING3×8 7-626-320-11
△ : PS2.6×12 7-628-254-40



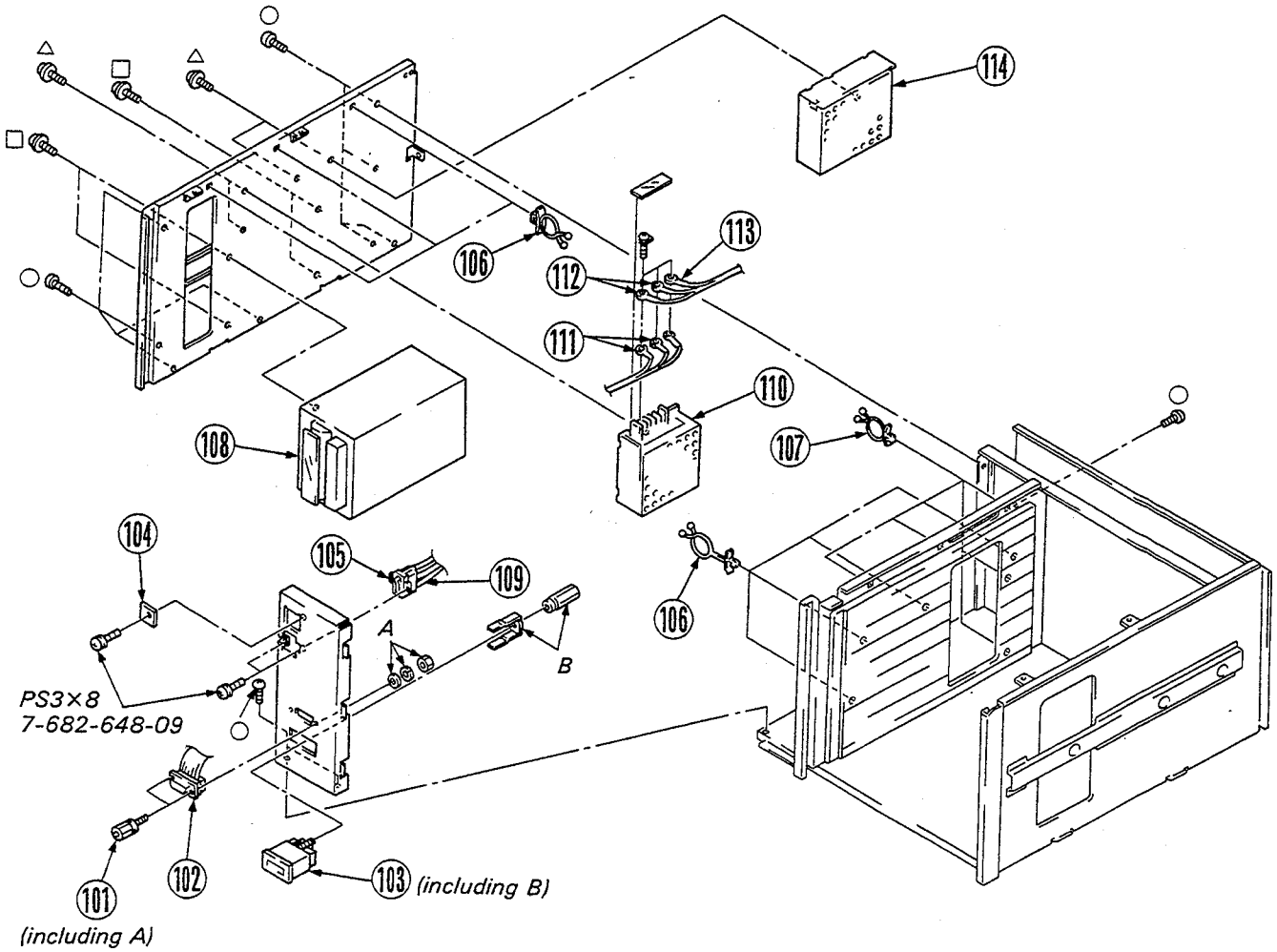
REF.NO.	PART NO.	DESCRIPTION	REMARK
51	*2-182-909-01	LEVER, PC BOARD	
52	*A-6258-513-A	CGI BOARD, COMPLETE	
53	*A-6256-378-A	EDD BOARD, COMPLETE	
54	*A-6258-510-A	DSP BOARD, COMPLETE	
55	*A-6258-511-A	MIX BOARD, COMPLETE	
56	*A-6258-512-A	PSC BOARD, COMPLETE	
57	*3-181-868-01	FRAME, FRONT	
58	*3-181-874-01	FRAME, REAR	

6-3. 電源部
6-3. POWER BLOCK SECTION

○ : BVTP3×8 TYPE2 IT-3 7-685-646-79
□ : PSW4×8 7-682-961-01
△ : PSW3×8 7-682-948-01

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

⚠および▒▒印の部品は、安全性を維持するために、重要な部品です。従って交換時は、必ず指定の部品を使用して下さい。



REF.NO.	PART NO.	DESCRIPTION	REMARK
101	4-603-275-00	LOCK, SCREW	
102	1-563-847-11	SOCKET, D-SUB CONNECTOR 15P	
103	1-251-124-11	COUNTER, TIME	
104	*1-631-489-11	LED BOARD	
105	⚠1-570-384-11	SWITCH, SEESAW (AC POWER)	
106	4-341-427-01	PURSE LOCK (TYPE S) (DIA. 15)	
107	9-910-999-33	PURSE LOCK (DIA.15)	
108	⚠1-413-876-21	REGULATOR, SWITCHING	
109	*1-900-038-01	CONNECTOR ASSY 2P	
110	⚠1-413-874-11	REGULATOR, SWITCHING	
111	*1-900-038-02	CONNECTOR ASSY 2P	
112	*1-900-038-03	CONNECTOR ASSY 2P	
113	*1-900-038-04	CONNECTOR ASSY	
114	⚠1-413-922-11	REGULATOR, SWITCHING	

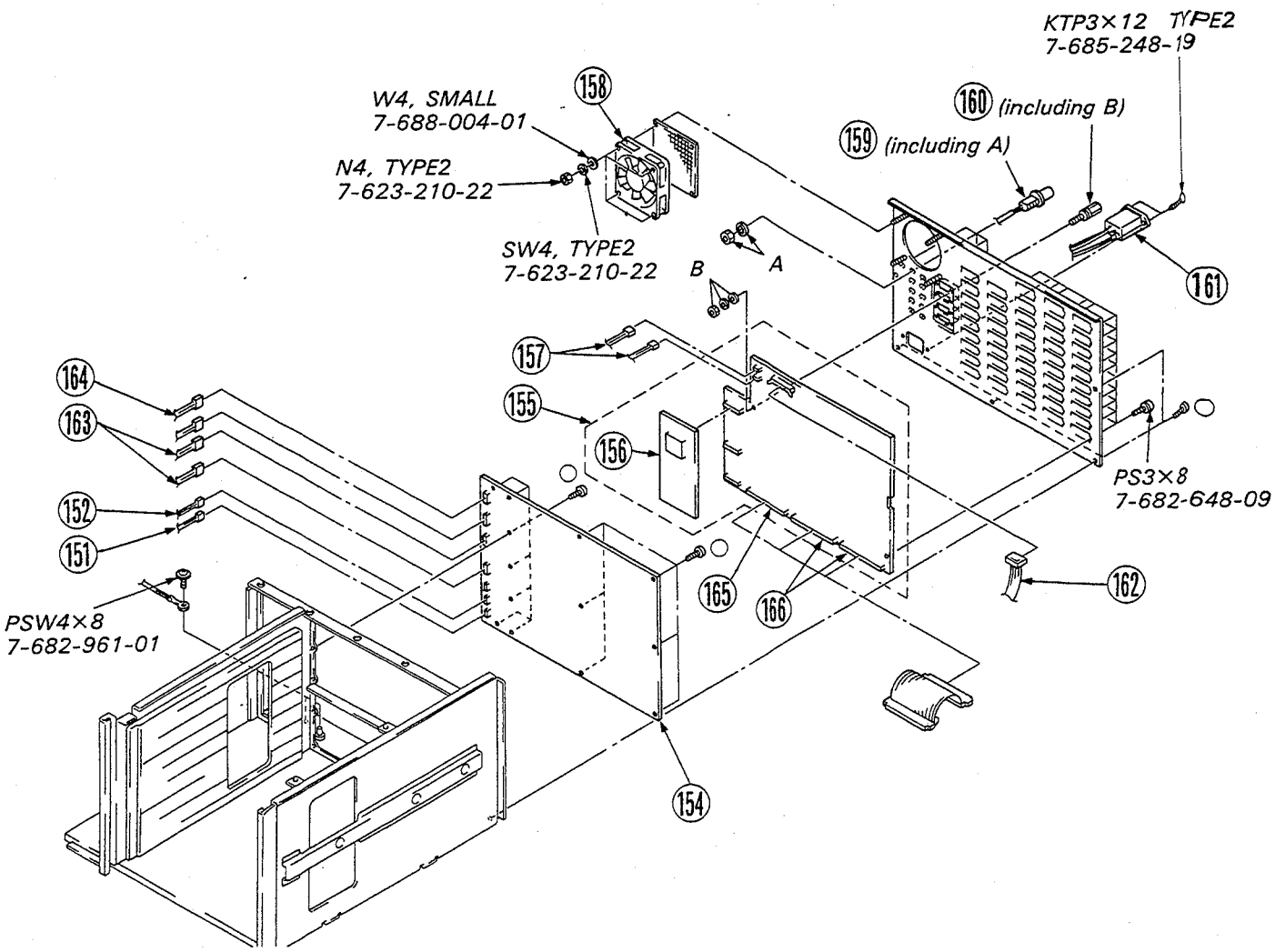
6-4. リアパネル部

6-4. REAR PANEL SECTION

○ : BVTP3×8 TYPE2 IT-3 7-685-646-79

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

⚠および▒印の部品は、安全性を維持するために、重要な部品です。従って交換時は、必ず指定の部品を使用して下さい。



REF.NO.	PART NO.	DESCRIPTION	REMARK
151	*1-900-038-08	CONNECTOR ASSY	
152	*1-900-038-09	CONNECTOR ASSY 3P	
154	*A-6258-514-A	BUS BOARD, COMPLETE	
155	*A-6266-353-A	DRV BOARD, COMPLETE	
156	*A-1304-062-A	MPU BOARD, COMPLETE (JTC-P110B/P110C)	
156	*A-6266-357-A	MPU BOARD, COMPLETE (JTC-P110)	
157	*1-900-038-05	CONNECTOR ASSY, DC IN	
158	1-698-046-11	FAN, DC	
159	*1-900-038-11	CONNECTOR ASSY (JTC-P110/P110B)	
160	4-603-275-00	LOCK, SCREW	
161	⚠1-540-157-11	INLET, AC (3P WITH NOISE FILTER)	
162	*1-900-038-10	CONNECTOR ASSY, D-SUB	
163	*1-900-038-07	CONNECTOR ASSY, DC IN	
164	*1-900-038-06	CONNECTOR ASSY, DC IN	
165	*1-900-038-13	CONNECTOR ASSY	
166	*1-900-038-12	CONNECTOR ASSY	

SECTION 7. ELECTRICAL PARTS LIST

7. 電気部品表

NOTE:

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS

- All resistors are in ohms
- F : nonflammable
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

【使用上の注意】

⚠および▒印の部品は、安全性を維持するために、重要な部品です。従って交換時は、必ず指定の部品を使用して下さい。

お願い

図面番号で部品を指定するときは基板名又はブロックを併せて指定して下さい。

- 抵抗の単位Ωは省略してあります。
  金属被膜：金属被膜抵抗。
  酸金被膜：酸化金属被膜抵抗。
  備考欄のFは不燃性抵抗を示します。
- * 印の部品は常時在庫しておりません。
- -XX, -Xは標準化部品のため，セットに付いている部品と異なる場合があります。
- ここに記載されている部品は，補修用部品であるため，回路図及びセットについている部品と異なる場合があります。

CP VR EDD

REF.NO.	PART NO.	DESCRIPTION			REMARK
	*A-1331-483-A	CP BOARD, COMPLETE			
		**********			
		CAPACITOR			
C73	1-163-275-11	CERAMIC CHIP 0.001MF	5%	50V	
C341	1-163-038-91	CERAMIC CHIP 0.1MF		25V	
C342	1-163-038-91	CERAMIC CHIP 0.1MF		25V	
C345	1-126-204-11	ELECT 47MF	20%	16V	
		IC			
IC114	8-759-925-74	IC SN74HC04ANS			
IC115	8-759-925-90	IC SN74HC74ANS			
		RESISTOR			
R330	1-216-113-00	METAL GLAZE 470K	5%	1/10W	
		**********			
	*A-1342-282-A	VR BOARD, COMPLETE			
		**********			
		RESISTOR			
R37	1-216-069-00	METAL GLAZE 6.8K	5%	1/10W	
R38	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W	
R328	1-216-069-00	METAL GLAZE 6.8K	5%	1/10W	
R329	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W	
		VARIABLE RESISTOR			
RV14	1-241-762-11	RES, ADJ, CARBON 2.2K			
RV15	1-241-762-11	RES, ADJ, CARBON 2.2K			
		**********			
	*A-6256-378-A	EDD BOARD, COMPLETE			
		**********			
	1-506-748-11	PIN, DIN CONNECTOR (DIP) 96P			
	1-562-579-11	RECEPTACLE, CONNECTOR 2P			
	*2-182-909-01	LEVER, PC BOARD			
	3-673-772-01	TERMINAL, TP			
	*4-053-788-01	SHEET, EARTH			
	7-626-320-11	PIN, SPRING 3X8			
	7-628-254-40	SCREW +PS 2.6X12			
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3			
		CAPACITOR			
C001	1-104-665-11	ELECT 100MF	20%	16V	
C002	1-163-038-91	CERAMIC CHIP 0.1MF		25V	
C003	1-164-161-11	CERAMIC CHIP 0.0022MF	10%	50V	
C004	1-163-127-00	CERAMIC CHIP 270PF	5%	50V	
C005	1-124-907-11	ELECT 10MF	20%	50V	
C006	1-163-113-00	CERAMIC CHIP 68PF	5%	50V	
C007	1-163-115-00	CERAMIC CHIP 82PF	5%	50V	
C008	1-163-097-00	CERAMIC CHIP 15PF	5%	50V	
C009	1-163-097-00	CERAMIC CHIP 15PF	5%	50V	
C010	1-164-343-11	CERAMIC CHIP 0.056MF	10%	25V	
C011	1-163-017-00	CERAMIC CHIP 0.0047MF	10%	50V	
C012	1-126-961-11	ELECT 2.2MF	20%	50V	
C013	1-126-961-11	ELECT 2.2MF	20%	50V	
C014	1-104-665-11	ELECT 100MF	20%	16V	
C015	1-124-910-11	ELECT 47MF	20%	50V	
C016	1-163-239-11	CERAMIC CHIP 33PF	5%	50V	
C017	1-163-038-91	CERAMIC CHIP 0.1MF		25V	
C018	1-124-907-11	ELECT 10MF	20%	50V	
C019	1-124-907-11	ELECT 10MF	20%	50V	
C020	1-124-907-11	ELECT 10MF	20%	50V	
C021	1-163-038-91	CERAMIC CHIP 0.1MF		25V	
C022	1-163-133-00	CERAMIC CHIP 470PF	5%	50V	
C023	1-163-133-00	CERAMIC CHIP 470PF	5%	50V	
C024	1-163-251-11	CERAMIC CHIP 100PF	5%	50V	
C025	1-163-251-11	CERAMIC CHIP 100PF	5%	50V	
C026	1-163-038-91	CERAMIC CHIP 0.1MF		25V	
C027	1-163-038-91	CERAMIC CHIP 0.1MF		25V	
C028	1-163-038-91	CERAMIC CHIP 0.1MF		25V	
C029	1-163-038-91	CERAMIC CHIP 0.1MF		25V	
C030	1-124-903-11	ELECT 1MF	20%	50V	
C031	1-163-038-91	CERAMIC CHIP 0.1MF		25V	
C032	1-163-038-91	CERAMIC CHIP 0.1MF		25V	
C033	1-163-038-91	CERAMIC CHIP 0.1MF		25V	
C034	1-163-038-91	CERAMIC CHIP 0.1MF		25V	
C035	1-163-038-91	CERAMIC CHIP 0.1MF		25V	
C036	1-163-038-91	CERAMIC CHIP 0.1MF		25V	
C037	1-163-038-91	CERAMIC CHIP 0.1MF		25V	
C038	1-124-907-11	ELECT 10MF	20%	50V	
C039	1-163-038-91	CERAMIC CHIP 0.1MF		25V	
C040	1-163-038-91	CERAMIC CHIP 0.1MF		25V	
C041	1-163-038-91	CERAMIC CHIP 0.1MF		25V	
C042	1-163-038-91	CERAMIC CHIP 0.1MF		25V	
C043	1-163-038-91	CERAMIC CHIP 0.1MF		25V	
C044	1-163-038-91	CERAMIC CHIP 0.1MF		25V	
C045	1-124-907-11	ELECT 10MF	20%	50V	
C046	1-163-038-91	CERAMIC CHIP 0.1MF		25V	
C047	1-163-038-91	CERAMIC CHIP 0.1MF		25V	
C048	1-163-038-91	CERAMIC CHIP 0.1MF		25V	
C049	1-163-038-91	CERAMIC CHIP 0.1MF		25V	
C050	1-163-038-91	CERAMIC CHIP 0.1MF		25V	
C051	1-163-038-91	CERAMIC CHIP 0.1MF		25V	
C052	1-163-038-91	CERAMIC CHIP 0.1MF		25V	
C053	1-163-239-11	CERAMIC CHIP 33PF	5%	50V	
C054	1-104-665-11	ELECT 100MF	20%	16V	
C055	1-163-017-00	CERAMIC CHIP 0.0047MF	10%	50V	
C056	1-163-038-91	CERAMIC CHIP 0.1MF		25V	
C057	1-163-137-00	CERAMIC CHIP 680PF	5%	50V	
C058	1-164-161-11	CERAMIC CHIP 0.0022MF	10%	50V	
C059	1-163-809-11	CERAMIC CHIP 0.047MF	10%	25V	
C060	1-163-809-11	CERAMIC CHIP 0.047MF	10%	25V	

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REF.NO.	PART NO.	DESCRIPTION			REMARK
C061	1-104-665-11	ELECT	100MF	20%	16V
C062	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C063	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C064	1-124-910-11	ELECT	47MF	20%	50V
C065	1-124-903-11	ELECT	1MF	20%	50V
C066	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C067	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C068	1-163-275-11	CERAMIC CHIP	0.001MF	5%	50V
C069	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C070	1-136-169-00	FILM	0.22MF	5%	50V
C071	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C072	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C073	1-163-275-11	CERAMIC CHIP	0.001MF	5%	50V
C074	1-124-907-11	ELECT	10MF	20%	50V
C075	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C076	1-124-907-11	ELECT	10MF	20%	50V
C077	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C078	1-104-665-11	ELECT	100MF	20%	16V
C079	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C080	1-124-907-11	ELECT	10MF	20%	50V
C081	1-124-907-11	ELECT	10MF	20%	50V
C082	1-124-907-11	ELECT	10MF	20%	50V
C083	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C084	1-104-665-11	ELECT	100MF	20%	16V
C085	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C086	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C087	1-104-665-11	ELECT	100MF	20%	16V
C088	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C089	1-124-907-11	ELECT	10MF	20%	50V
C090	1-136-169-00	FILM	0.22MF	5%	50V
C091	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C092	1-104-665-11	ELECT	100MF	20%	16V
C093	1-124-903-11	ELECT	1MF	20%	50V
C094	1-124-903-11	ELECT	1MF	20%	50V
C095	1-124-903-11	ELECT	1MF	20%	50V
C096	1-124-903-11	ELECT	1MF	20%	50V
C098	1-136-169-00	FILM	0.22MF	5%	50V
C099	1-136-169-00	FILM	0.22MF	5%	50V
C100	1-136-169-00	FILM	0.22MF	5%	50V
C101	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C102	1-163-037-11	CERAMIC CHIP	0.022MF	10%	50V
C103	1-124-903-11	ELECT	1MF	20%	50V
C104	1-124-903-11	ELECT	1MF	20%	50V
C105	1-104-665-11	ELECT	100MF	20%	16V
C106	1-104-665-11	ELECT	100MF	20%	16V
C107	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C108	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C109	1-163-037-11	CERAMIC CHIP	0.022MF	10%	50V
C110	1-126-965-11	ELECT	22MF	20%	50V
C111	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C112	1-136-169-00	FILM	0.22MF	5%	50V
C113	1-163-275-11	CERAMIC CHIP	0.001MF	5%	50V
C114	1-136-167-00	FILM	0.15MF	5%	50V
C115	1-137-194-11	FILM	0.47MF	5%	50V
C116	1-124-907-11	ELECT	10MF	20%	50V
C117	1-124-903-11	ELECT	1MF	20%	50V
C118	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C119	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C120	1-124-907-11	ELECT	10MF	20%	50V
C121	1-124-910-11	ELECT	47MF	20%	50V
C122	1-124-910-11	ELECT	47MF	20%	50V
C123	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C124	1-124-907-11	ELECT	10MF	20%	50V
C125	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C126	1-124-910-11	ELECT	47MF	20%	50V
C127	1-124-907-11	ELECT	10MF	20%	50V
C128	1-124-910-11	ELECT	47MF	20%	50V
C129	1-104-665-11	ELECT	100MF	20%	16V
C130	1-124-910-11	ELECT	47MF	20%	50V
C131	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C132	1-124-910-11	ELECT	47MF	20%	50V
C133	1-124-907-11	ELECT	10MF	20%	50V
C134	1-124-910-11	ELECT	47MF	20%	50V
C135	1-124-907-11	ELECT	10MF	20%	50V
C136	1-124-903-11	ELECT	1MF	20%	50V
C137	1-124-907-11	ELECT	10MF	20%	50V
C138	1-124-903-11	ELECT	1MF	20%	50V
C139	1-124-910-11	ELECT	47MF	20%	50V
C140	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C141	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C142	1-124-910-11	ELECT	47MF	20%	50V
C143	1-124-907-11	ELECT	10MF	20%	50V
C144	1-124-910-11	ELECT	47MF	20%	50V
C145	1-124-907-11	ELECT	10MF	20%	50V
C146	1-124-910-11	ELECT	47MF	20%	50V
C147	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C148	1-124-910-11	ELECT	47MF	20%	50V
C149	1-124-910-11	ELECT	47MF	20%	50V
C150	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C151	1-124-910-11	ELECT	47MF	20%	50V
C152	1-124-910-11	ELECT	47MF	20%	50V
C153	1-104-665-11	ELECT	100MF	20%	16V
C156	1-163-275-11	CERAMIC CHIP	0.001MF	5%	50V
C157	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C158	1-124-910-11	ELECT	47MF	20%	50V
C159	1-104-665-11	ELECT	100MF	20%	16V
C160	1-124-907-11	ELECT	10MF	20%	50V
C161	1-124-907-11	ELECT	10MF	20%	50V
C162	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C163	1-104-665-11	ELECT	100MF	20%	16V
C164	1-104-665-11	ELECT	100MF	20%	16V
C165	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C166	1-124-907-11	ELECT	10MF	20%	50V
C167	1-124-907-11	ELECT	10MF	20%	50V
C168	1-104-665-11	ELECT	100MF	20%	16V
C169	1-124-907-11	ELECT	10MF	20%	50V
C170	1-124-907-11	ELECT	10MF	20%	50V
C171	1-104-665-11	ELECT	100MF	20%	16V
C172	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C174	1-136-169-00	FILM	0.22MF	5%	50V
C175	1-136-169-00	FILM	0.22MF	5%	50V
C176	1-136-169-00	FILM	0.22MF	5%	50V

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REF.NO.	PART NO.	DESCRIPTION			REMARK
C177	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C178	1-126-963-11	ELECT	4.7MF	20%	50V
C179	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C183	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C184	1-124-907-11	ELECT	10MF	20%	50V
C185	1-136-169-00	FILM	0.22MF	5%	50V
C186	1-137-194-11	FILM	0.47MF	5%	50V
C187	1-163-135-00	CERAMIC CHIP	560PF	5%	50V
C188	1-126-965-11	ELECT	22MF	20%	50V
C189	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C190	1-104-665-11	ELECT	100MF	20%	16V
C191	1-124-903-11	ELECT	1MF	20%	50V
C192	1-124-903-11	ELECT	1MF	20%	50V
C193	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C194	1-104-665-11	ELECT	100MF	20%	16V
C195	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C196	1-104-665-11	ELECT	100MF	20%	16V
C197	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C198	1-163-127-00	CERAMIC CHIP	270PF	5%	50V
C199	1-124-907-11	ELECT	10MF	20%	50V
C200	1-164-343-11	CERAMIC CHIP	0.056MF	10%	25V
C201	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C202	1-126-961-11	ELECT	2.2MF	20%	50V
C203	1-126-961-11	ELECT	2.2MF	20%	50V
C204	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C205	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C206	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C207	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C208	1-104-665-11	ELECT	100MF	20%	16V
C209	1-104-665-11	ELECT	100MF	20%	16V
C210	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C211	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C212	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C213	1-163-127-00	CERAMIC CHIP	270PF	5%	50V
C214	1-124-907-11	ELECT	10MF	20%	50V
C215	1-164-343-11	CERAMIC CHIP	0.056MF	10%	25V
C216	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C217	1-126-961-11	ELECT	2.2MF	20%	50V
C218	1-126-961-11	ELECT	2.2MF	20%	50V
C219	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C220	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C221	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C222	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C223	1-104-665-11	ELECT	100MF	20%	16V
C224	1-104-665-11	ELECT	100MF	20%	16V
C225	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C226	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C227	1-124-907-11	ELECT	10MF	20%	50V
C228	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C229	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C230	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C231	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C232	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C233	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C234	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C235	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C236	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C237	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C238	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C239	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C240	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C241	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C242	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C243	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C250	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C251	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C252	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C253	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C254	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C255	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C256	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C257	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C258	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C259	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C260	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C261	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C262	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C263	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C264	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C265	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C266	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C267	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C268	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C269	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C270	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C271	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C272	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C273	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C274	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C275	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C276	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C277	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C278	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C279	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C280	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C281	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C282	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C283	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C284	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C285	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C286	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C287	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C288	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C289	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C290	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C291	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C292	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C293	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C294	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C295	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C296	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C297	1-163-038-91	CERAMIC CHIP	0.1MF		25V

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REF.NO.	PART NO.	DESCRIPTION		REMARK
C298	1-163-038-91	CERAMIC CHIP 0.1MF		25V
C299	1-163-038-91	CERAMIC CHIP 0.1MF		25V
C300	1-104-665-11	ELECT 100MF	20%	16V
C301	1-104-665-11	ELECT 100MF	20%	16V
C302	1-163-038-91	CERAMIC CHIP 0.1MF		25V
C303	1-163-038-91	CERAMIC CHIP 0.1MF		25V
C304	1-124-910-11	ELECT 47MF	20%	50V
C305	1-163-038-91	CERAMIC CHIP 0.1MF		25V
C306	1-124-910-11	ELECT 47MF	20%	50V
C307	1-163-038-91	CERAMIC CHIP 0.1MF		25V
C308	1-163-038-91	CERAMIC CHIP 0.1MF		25V
C309	1-163-038-91	CERAMIC CHIP 0.1MF		25V
C310	1-163-038-91	CERAMIC CHIP 0.1MF		25V
C311	1-163-038-91	CERAMIC CHIP 0.1MF		25V
C312	1-163-038-91	CERAMIC CHIP 0.1MF		25V
C313	1-163-038-91	CERAMIC CHIP 0.1MF		25V
C314	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C315	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C316	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C317	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C318	1-163-251-11	CERAMIC CHIP 100PF	5%	50V
C319	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C320	1-163-251-11	CERAMIC CHIP 100PF	5%	50V
C321	1-104-665-11	ELECT 100MF	20%	16V
C322	1-163-038-91	CERAMIC CHIP 0.1MF		25V
C323	1-137-194-11	FILM 0.47MF	5%	50V
C324	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C325	1-163-251-11	CERAMIC CHIP 100PF	5%	50V
C326	1-163-038-91	CERAMIC CHIP 0.1MF		25V
C327	1-163-251-11	CERAMIC CHIP 100PF	5%	50V
C328	1-163-251-11	CERAMIC CHIP 100PF	5%	50V
C329	1-163-251-11	CERAMIC CHIP 100PF	5%	50V
C330	1-163-038-91	CERAMIC CHIP 0.1MF		25V
C331	1-137-194-11	FILM 0.47MF	5%	50V
C332	1-163-251-11	CERAMIC CHIP 100PF	5%	50V
C333	1-163-038-91	CERAMIC CHIP 0.1MF		25V
C334	1-163-038-91	CERAMIC CHIP 0.1MF		25V
C335	1-163-038-91	CERAMIC CHIP 0.1MF		25V
C336	1-163-038-91	CERAMIC CHIP 0.1MF		25V

TRIMMER

CV001	1-141-245-00	CAP, TRIMMER
CV002	1-141-245-00	CAP, TRIMMER
CV003	1-141-245-00	CAP, TRIMMER
CV004	1-141-245-00	CAP, TRIMMER

DIODE

D001	8-719-949-98	DIODE 1T33-T8
D002	8-719-110-36	DIODE RD13ESB2
D003	8-719-110-36	DIODE RD13ESB2
D004	8-719-110-36	DIODE RD13ESB2
D005	8-719-110-36	DIODE RD13ESB2
D006	8-719-110-36	DIODE RD13ESB2
D007	8-719-911-19	DIODE 1SS119-25
D010	8-719-109-93	DIODE RD6.2ESB2
D011	8-719-911-19	DIODE 1SS119-25
D012	8-719-949-98	DIODE 1T33-T8
D013	8-719-949-98	DIODE 1T33-T8
D014	8-719-047-32	DIODE HSM126S-TL
D015	8-719-047-32	DIODE HSM126S-TL
D016	8-719-047-32	DIODE HSM126S-TL
D017	8-719-047-32	DIODE HSM126S-TL

DELAY LINE

DL001	1-415-122-91	DELAY LINE, 1H (PAL)

TEST PIN

E1	3-673-772-01	TERMINAL, TP
E2	3-673-772-01	TERMINAL, TP
E3	3-673-772-01	TERMINAL, TP
E4	3-673-772-01	TERMINAL, TP
E5	3-673-772-01	TERMINAL, TP

ENCAPSULATED COMPONENT

EMI001	1-236-129-11	ENCAPSULATED COMPONENT
EMI002	1-236-129-11	ENCAPSULATED COMPONENT
EMI003	1-236-129-11	ENCAPSULATED COMPONENT
EMI004	1-236-129-11	ENCAPSULATED COMPONENT
EMI005	1-236-129-11	ENCAPSULATED COMPONENT

FERRITE BEAD

FB1	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH
FB2	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH
FB3	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH

IC

IC001	8-759-103-09	IC uPC4082G2
IC002	8-759-008-67	IC MC14066BF
IC003	8-759-232-84	IC TC74HC175AF
IC004	8-759-232-22	IC TC74HC27AF
IC005	8-759-243-50	IC TC74AC08F
IC006	8-752-340-52	IC CXK48324Q
IC007	8-752-337-04	IC CXD1176Q
IC008	8-759-244-85	IC TC74AC574F
IC009	8-752-360-43	IC CXK1203AQ
IC010	8-752-360-43	IC CXK1203AQ
IC011	8-752-337-04	IC CXD1176Q
IC012	8-759-244-85	IC TC74AC574F
IC013	8-752-337-04	IC CXD1176Q
IC014	8-759-244-85	IC TC74AC574F
IC015	8-752-360-43	IC CXK1203AQ
IC016	8-752-329-38	IC CXD2002Q
IC017	8-749-923-35	IC SNY-3076
IC018	8-749-923-36	IC SNY-3077
IC019	8-759-503-07	IC SN74AS1004ANS
IC020	8-759-244-75	IC TC74AC541F

EDD

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC021	8-759-925-74	IC SN74HC04ANS	
IC022	8-759-244-85	IC TC74AC574F	
IC023	8-759-244-85	IC TC74AC574F	
IC024	8-759-244-85	IC TC74AC574F	
IC025	8-759-244-85	IC TC74AC574F	
IC026	8-759-233-38	IC TC74HC564AF	
IC027	8-759-233-38	IC TC74HC564AF	
IC028	8-759-243-66	IC TC74ACT74F	
IC029	8-752-062-80	IC CXA1686M	
IC030	8-741-765-01	IC SBX1765-01	
IC031	8-752-058-64	IC CXA1213BS	
IC032	8-759-701-59	IC NJM78M09FA	
IC033	8-759-239-58	IC TC74HC221AF	
IC034	8-759-800-81	IC LA7016	
IC035	8-759-800-81	IC LA7016	
IC036	8-759-800-81	IC LA7016	
IC037	8-759-800-81	IC LA7016	
IC038	8-759-800-81	IC LA7016	
IC039	8-759-504-21	IC TDA8443A/C4	
IC040	8-752-037-31	IC CXA1365S	
IC041	8-759-243-06	IC TC74AC04F	
IC042	8-759-243-06	IC TC74AC04F	
IC043	8-759-007-56	IC MC74HC30F	
IC044	8-759-007-56	IC MC74HC30F	
IC045	8-759-243-62	IC TC74AC32F	
IC046	8-759-994-67	IC MB86022PF	
IC047	8-759-244-00	IC TC74AC161F	
IC048	8-759-244-00	IC TC74AC161F	
IC049	8-759-243-06	IC TC74AC04F	
IC050	8-759-243-09	IC TC74AC74F	
IC051	8-759-244-12	IC TC74AC175F	
IC052	8-759-244-00	IC TC74AC161F	
IC053	8-759-244-00	IC TC74AC161F	
IC054	8-759-244-00	IC TC74AC161F	
IC055	8-759-243-39	IC TC74AC00F	
IC056	8-759-243-74	IC TC74AC138F	
IC057	8-759-244-85	IC TC74AC574F	
IC058	8-752-360-43	IC CXK1203AQ	
IC059	8-759-244-00	IC TC74AC161F	
IC060	8-759-244-00	IC TC74AC161F	
IC061	8-759-244-00	IC TC74AC161F	
IC062	8-759-244-00	IC TC74AC161F	
IC063	8-759-244-00	IC TC74AC161F	
IC064	8-759-244-12	IC TC74AC175F	
IC065	8-759-243-74	IC TC74AC138F	
IC066	8-759-243-74	IC TC74AC138F	
IC067	8-759-244-85	IC TC74AC574F	
IC068	8-759-244-85	IC TC74AC574F	
IC069	8-759-244-12	IC TC74AC175F	
IC070	8-759-244-04	IC TC74AC163F	
IC071	8-759-244-04	IC TC74AC163F	
IC072	8-759-244-00	IC TC74AC161F	
IC073	8-759-244-00	IC TC74AC161F	
IC074	8-759-244-00	IC TC74AC161F	
IC075	8-759-244-00	IC TC74AC161F	
IC076	8-759-244-00	IC TC74AC161F	
IC077	8-759-244-00	IC TC74AC161F	
IC078	8-759-244-00	IC TC74AC161F	
IC079	8-759-244-00	IC TC74AC161F	
IC080	8-759-243-60	IC TC74AC20F	
IC081	8-759-243-39	IC TC74AC00F	
IC082	8-759-244-00	IC TC74AC161F	
IC083	8-759-244-12	IC TC74AC175F	
IC084	8-759-103-09	IC uPC4082G2	
IC085	8-759-103-09	IC uPC4082G2	
IC086	8-759-008-67	IC MC14066BF	
IC087	8-759-243-06	IC TC74AC04F	
IC088	8-759-243-06	IC TC74AC04F	
IC089	8-759-244-00	IC TC74AC161F	
IC090	8-759-244-00	IC TC74AC161F	
IC091	8-759-244-00	IC TC74AC161F	
IC092	8-759-244-00	IC TC74AC161F	
IC093	8-759-243-43	IC TC74AC02F	
IC094	8-759-244-75	IC TC74AC541F	
IC095	8-759-243-39	IC TC74AC00F	
IC096	8-759-243-09	IC TC74AC74F	
IC097	8-759-244-00	IC TC74AC161F	
IC098	8-759-244-00	IC TC74AC161F	
IC099	8-759-244-00	IC TC74AC161F	
IC100	8-759-244-00	IC TC74AC161F	
IC101	8-759-008-67	IC MC14066BF	
IC102	8-759-300-71	IC HD14053BFP	
IC103	8-759-008-67	IC MC14066BF	
IC104	8-759-239-58	IC TC74HC221AF	
IC105	8-759-239-58	IC TC74HC221AF	
IC106	8-759-925-90	IC SN74HC74ANS	
IC107	8-759-103-09	IC uPC4082G2	
IC108	8-759-103-09	IC uPC4082G2	
IC109	8-759-244-00	IC TC74AC161F	
IC110	8-759-244-00	IC TC74AC161F	
IC111	8-759-244-00	IC TC74AC161F	
IC112	8-759-244-00	IC TC74AC161F	
IC113	8-759-243-90	IC TC74AC157F	
		CONNECTOR	
JP001	1-564-953-11	PIN, CONNECTOR 20P	
		COIL	
L001	1-410-466-41	INDUCTOR 4.7UH	
L003	1-410-466-41	INDUCTOR 4.7UH	
L004	1-410-466-41	INDUCTOR 4.7UH	
L005	1-410-466-41	INDUCTOR 4.7UH	
L006	1-408-617-31	INDUCTOR 150UH	
L007	1-410-466-41	INDUCTOR 4.7UH	
L008	1-410-466-41	INDUCTOR 4.7UH	
L009	1-408-406-00	INDUCTOR 5.6UH	
L010	1-410-466-41	INDUCTOR 4.7UH	
L011	1-410-466-41	INDUCTOR 4.7UH	
L012	1-410-466-41	INDUCTOR 4.7UH	
L013	1-410-466-41	INDUCTOR 4.7UH	

EDD

REF.NO.	PART NO.	DESCRIPTION	REMARK
L014	1-404-608-11	COIL	
L015	1-404-608-11	COIL	
L016	1-404-608-11	COIL	
L017	1-404-524-11	DAT	

FILTER

LPF001	1-236-620-11	FILTER, LOW PASS	
LPF002	1-236-620-11	FILTER, LOW PASS	
LPF003	1-236-620-11	FILTER, LOW PASS	
LPF004	1-236-307-11	FILTER, LOW PASS	
LPF005	1-236-304-11	FILTER, LOW PASS	
LPF006	1-236-307-11	FILTER, LOW PASS	

TRANSISTOR

Q001	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q002	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q003	8-729-216-22	TRANSISTOR 2SA1162-G	
Q004	8-729-162-13	TRANSISTOR 2SC1621-B4	
Q005	8-729-162-13	TRANSISTOR 2SC1621-B4	
Q006	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q007	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q008	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q009	8-729-216-22	TRANSISTOR 2SA1162-G	
Q010	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q011	8-729-901-01	TRANSISTOR DTC144EK	
Q012	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q013	8-729-216-22	TRANSISTOR 2SA1162-G	
Q014	8-729-901-01	TRANSISTOR DTC144EK	
Q015	8-729-901-01	TRANSISTOR DTC144EK	
Q016	8-729-216-22	TRANSISTOR 2SA1162-G	
Q017	8-729-216-22	TRANSISTOR 2SA1162-G	
Q018	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q019	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q020	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q021	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q022	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q023	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q024	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q025	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q026	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q027	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q029	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q030	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q031	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q032	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q033	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q034	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q035	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q036	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q037	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q038	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q039	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q040	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q041	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q043	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q044	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q045	8-729-900-53	TRANSISTOR DTC114EK	
Q046	8-729-900-53	TRANSISTOR DTC114EK	
Q047	8-729-216-22	TRANSISTOR 2SA1162-G	
Q048	8-729-900-53	TRANSISTOR DTC114EK	
Q049	8-729-900-53	TRANSISTOR DTC114EK	
Q051	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q052	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q053	8-729-216-22	TRANSISTOR 2SA1162-G	
Q054	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q055	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q056	8-729-162-13	TRANSISTOR 2SC1621-B4	
Q057	8-729-162-13	TRANSISTOR 2SC1621-B4	
Q058	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q059	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q060	8-729-216-22	TRANSISTOR 2SA1162-G	
Q061	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q062	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q063	8-729-162-13	TRANSISTOR 2SC1621-B4	
Q064	8-729-162-13	TRANSISTOR 2SC1621-B4	
Q065	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q066	8-729-216-22	TRANSISTOR 2SA1162-G	
Q067	8-729-216-22	TRANSISTOR 2SA1162-G	
Q068	8-729-216-22	TRANSISTOR 2SA1162-G	
Q069	8-729-216-22	TRANSISTOR 2SA1162-G	
Q070	8-729-216-22	TRANSISTOR 2SA1162-G	
Q071	8-729-216-22	TRANSISTOR 2SA1162-G	
Q072	8-729-900-53	TRANSISTOR DTC114EK	
Q073	8-729-900-53	TRANSISTOR DTC114EK	

RESISTOR

R001	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R002	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R003	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R004	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R005	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R006	1-216-077-00	METAL GLAZE	15K	5%	1/10W
R007	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R008	1-216-041-00	METAL GLAZE	470	5%	1/10W
R009	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R010	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R011	1-216-017-91	METAL GLAZE	47	5%	1/10W
R012	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R013	1-216-121-91	METAL GLAZE	1M	5%	1/10W
R014	1-216-121-91	METAL GLAZE	1M	5%	1/10W
R015	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R016	1-216-077-00	METAL GLAZE	15K	5%	1/10W
R017	1-216-077-00	METAL GLAZE	15K	5%	1/10W
R018	1-249-405-11	CARBON	100	5%	1/4W
R019	1-216-033-00	METAL GLAZE	220	5%	1/10W
R020	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R021	1-216-037-00	METAL GLAZE	330	5%	1/10W
R022	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W
R023	1-216-063-91	METAL GLAZE	3.9K	5%	1/10W
R024	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W

EDD

REF.NO.	PART NO.	DESCRIPTION		REMARK
R025	1-216-063-91	METAL GLAZE 3.9K	5%	1/10W
R026	1-216-081-00	METAL GLAZE 22K	5%	1/10W
R027	1-216-069-00	METAL GLAZE 6.8K	5%	1/10W
R028	1-216-055-00	METAL GLAZE 1.8K	5%	1/10W
R029	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R030	1-216-081-00	METAL GLAZE 22K	5%	1/10W
R031	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R032	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R033	1-216-049-91	METAL GLAZE 1K	5%	1/10W
R034	1-216-079-00	METAL GLAZE 18K	5%	1/10W
R035	1-216-053-00	METAL GLAZE 1.5K	5%	1/10W
R036	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W
R039	1-216-025-91	METAL GLAZE 100	5%	1/10W
R040	1-216-097-91	METAL GLAZE 100K	5%	1/10W
R041	1-216-025-91	METAL GLAZE 100	5%	1/10W
R042	1-216-097-91	METAL GLAZE 100K	5%	1/10W
R043	1-216-025-91	METAL GLAZE 100	5%	1/10W
R044	1-216-097-91	METAL GLAZE 100K	5%	1/10W
R045	1-216-025-91	METAL GLAZE 100	5%	1/10W
R046	1-216-097-91	METAL GLAZE 100K	5%	1/10W
R047	1-216-025-91	METAL GLAZE 100	5%	1/10W
R048	1-216-097-91	METAL GLAZE 100K	5%	1/10W
R049	1-216-041-00	METAL GLAZE 470	5%	1/10W
R050	1-216-049-91	METAL GLAZE 1K	5%	1/10W
R051	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R052	1-216-049-91	METAL GLAZE 1K	5%	1/10W
R053	1-216-049-91	METAL GLAZE 1K	5%	1/10W
R054	1-216-053-00	METAL GLAZE 1.5K	5%	1/10W
R057	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R058	1-216-089-91	METAL GLAZE 47K	5%	1/10W
R059	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R060	1-216-053-00	METAL GLAZE 1.5K	5%	1/10W
R061	1-216-069-00	METAL GLAZE 6.8K	5%	1/10W
R062	1-216-041-00	METAL GLAZE 470	5%	1/10W
R063	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W
R064	1-216-077-00	METAL GLAZE 15K	5%	1/10W
R065	1-216-081-00	METAL GLAZE 22K	5%	1/10W
R066	1-216-071-00	METAL GLAZE 8.2K	5%	1/10W
R067	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W
R068	1-216-059-00	METAL GLAZE 2.7K	5%	1/10W
R069	1-216-037-00	METAL GLAZE 330	5%	1/10W
R070	1-216-043-91	METAL GLAZE 560	5%	1/10W
R071	1-216-067-00	METAL GLAZE 5.6K	5%	1/10W
R072	1-216-041-00	METAL GLAZE 470	5%	1/10W
R075	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R076	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R079	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W
R080	1-216-025-91	METAL GLAZE 100	5%	1/10W
R081	1-216-043-91	METAL GLAZE 560	5%	1/10W
R082	1-216-079-00	METAL GLAZE 18K	5%	1/10W
R083	1-216-077-00	METAL GLAZE 15K	5%	1/10W
R084	1-216-079-00	METAL GLAZE 18K	5%	1/10W
R085	1-216-039-00	METAL GLAZE 390	5%	1/10W
R086	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W
R087	1-216-025-91	METAL GLAZE 100	5%	1/10W
R088	1-216-043-91	METAL GLAZE 560	5%	1/10W
R089	1-216-079-00	METAL GLAZE 18K	5%	1/10W
R090	1-216-077-00	METAL GLAZE 15K	5%	1/10W
R091	1-216-079-00	METAL GLAZE 18K	5%	1/10W
R092	1-216-039-00	METAL GLAZE 390	5%	1/10W
R093	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W
R094	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W
R095	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W
R096	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W
R097	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R098	1-216-077-00	METAL GLAZE 15K	5%	1/10W
R099	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W
R100	1-216-041-00	METAL GLAZE 470	5%	1/10W
R101	1-216-089-91	METAL GLAZE 47K	5%	1/10W
R102	1-216-081-00	METAL GLAZE 22K	5%	1/10W
R103	1-216-133-00	METAL GLAZE 3.3M	5%	1/10W
R104	1-216-063-91	METAL GLAZE 3.9K	5%	1/10W
R106	1-216-059-00	METAL GLAZE 2.7K	5%	1/10W
R107	1-216-067-00	METAL GLAZE 5.6K	5%	1/10W
R108	1-216-685-11	METAL CHIP 27K	0.50%	1/10W
R109	1-216-049-91	METAL GLAZE 1K	5%	1/10W
R110	1-216-039-00	METAL GLAZE 390	5%	1/10W
R111	1-216-041-00	METAL GLAZE 470	5%	1/10W
R112	1-216-031-00	METAL GLAZE 180	5%	1/10W
R113	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R114	1-216-053-00	METAL GLAZE 1.5K	5%	1/10W
R115	1-216-093-00	METAL GLAZE 68K	5%	1/10W
R116	1-216-022-00	METAL GLAZE 75	5%	1/10W
R117	1-216-022-00	METAL GLAZE 75	5%	1/10W
R118	1-216-079-00	METAL GLAZE 18K	5%	1/10W
R119	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R120	1-216-053-00	METAL GLAZE 1.5K	5%	1/10W
R121	1-216-051-00	METAL GLAZE 1.2K	5%	1/10W
R122	1-216-053-00	METAL GLAZE 1.5K	5%	1/10W
R123	1-216-081-00	METAL GLAZE 22K	5%	1/10W
R124	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R125	1-216-025-91	METAL GLAZE 100	5%	1/10W
R126	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W
R127	1-216-022-00	METAL GLAZE 75	5%	1/10W
R128	1-216-079-00	METAL GLAZE 18K	5%	1/10W
R129	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R130	1-216-053-00	METAL GLAZE 1.5K	5%	1/10W
R131	1-216-022-00	METAL GLAZE 75	5%	1/10W
R132	1-216-079-00	METAL GLAZE 18K	5%	1/10W
R133	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R134	1-216-053-00	METAL GLAZE 1.5K	5%	1/10W
R135	1-216-049-91	METAL GLAZE 1K	5%	1/10W
R136	1-216-053-00	METAL GLAZE 1.5K	5%	1/10W
R137	1-216-022-00	METAL GLAZE 75	5%	1/10W
R139	1-216-045-00	METAL GLAZE 680	5%	1/10W
R140	1-216-049-91	METAL GLAZE 1K	5%	1/10W
R143	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W
R144	1-216-071-00	METAL GLAZE 8.2K	5%	1/10W
R145	1-216-061-00	METAL GLAZE 3.3K	5%	1/10W
R146	1-216-045-00	METAL GLAZE 680	5%	1/10W
R147	1-216-049-91	METAL GLAZE 1K	5%	1/10W
R148	1-216-071-00	METAL GLAZE 8.2K	5%	1/10W

EDD

REF.NO.	PART NO.	DESCRIPTION		REMARK
R149	1-216-035-00	METAL GLAZE 270	5%	1/10W
R150	1-216-045-00	METAL GLAZE 680	5%	1/10W
R151	1-216-061-00	METAL GLAZE 3.3K	5%	1/10W
R152	1-216-045-00	METAL GLAZE 680	5%	1/10W
R153	1-216-031-00	METAL GLAZE 180	5%	1/10W
R154	1-216-055-00	METAL GLAZE 1.8K	5%	1/10W
R155	1-216-045-00	METAL GLAZE 680	5%	1/10W
R156	1-216-071-00	METAL GLAZE 8.2K	5%	1/10W
R157	1-216-061-00	METAL GLAZE 3.3K	5%	1/10W
R158	1-216-045-00	METAL GLAZE 680	5%	1/10W
R159	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W
R161	1-216-049-91	METAL GLAZE 1K	5%	1/10W
R162	1-216-071-00	METAL GLAZE 8.2K	5%	1/10W
R163	1-216-045-00	METAL GLAZE 680	5%	1/10W
R164	1-216-061-00	METAL GLAZE 3.3K	5%	1/10W
R165	1-216-045-00	METAL GLAZE 680	5%	1/10W
R166	1-216-031-00	METAL GLAZE 180	5%	1/10W
R167	1-216-055-00	METAL GLAZE 1.8K	5%	1/10W
R168	1-216-045-00	METAL GLAZE 680	5%	1/10W
R169	1-216-071-00	METAL GLAZE 8.2K	5%	1/10W
R170	1-216-061-00	METAL GLAZE 3.3K	5%	1/10W
R171	1-216-045-00	METAL GLAZE 680	5%	1/10W
R172	1-216-049-91	METAL GLAZE 1K	5%	1/10W
R173	1-216-071-00	METAL GLAZE 8.2K	5%	1/10W
R174	1-216-039-00	METAL GLAZE 390	5%	1/10W
R175	1-216-045-00	METAL GLAZE 680	5%	1/10W
R176	1-216-061-00	METAL GLAZE 3.3K	5%	1/10W
R177	1-216-045-00	METAL GLAZE 680	5%	1/10W
R178	1-216-031-00	METAL GLAZE 180	5%	1/10W
R179	1-216-055-00	METAL GLAZE 1.8K	5%	1/10W
R180	1-216-045-00	METAL GLAZE 680	5%	1/10W
R181	1-216-685-11	METAL CHIP 27K	0.50%	1/10W
R183	1-216-067-00	METAL GLAZE 5.6K	5%	1/10W
R184	1-216-089-91	METAL GLAZE 47K	5%	1/10W
R185	1-216-085-00	METAL GLAZE 33K	5%	1/10W
R186	1-216-035-00	METAL GLAZE 270	5%	1/10W
R187	1-216-109-00	METAL GLAZE 330K	5%	1/10W
R188	1-216-085-00	METAL GLAZE 33K	5%	1/10W
R189	1-216-099-00	METAL GLAZE 120K	5%	1/10W
R191	1-216-049-91	METAL GLAZE 1K	5%	1/10W
R192	1-216-009-00	METAL GLAZE 22	5%	1/10W
R193	1-216-009-00	METAL GLAZE 22	5%	1/10W
R194	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W
R201	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R202	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W
R205	1-216-097-91	METAL GLAZE 100K	5%	1/10W
R206	1-216-025-91	METAL GLAZE 100	5%	1/10W
R207	1-216-009-00	METAL GLAZE 22	5%	1/10W
R208	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W
R211	1-216-061-00	METAL GLAZE 3.3K	5%	1/10W
R212	1-216-045-00	METAL GLAZE 680	5%	1/10W
R213	1-216-063-91	METAL GLAZE 3.9K	5%	1/10W
R214	1-216-049-91	METAL GLAZE 1K	5%	1/10W
R215	1-216-061-00	METAL GLAZE 3.3K	5%	1/10W
R216	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R217	1-216-061-00	METAL GLAZE 3.3K	5%	1/10W

REF.NO.	PART NO.	DESCRIPTION		REMARK
R218	1-216-045-00	METAL GLAZE 680	5%	1/10W
R219	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R220	1-216-025-91	METAL GLAZE 100	5%	1/10W
R221	1-216-097-91	METAL GLAZE 100K	5%	1/10W
R222	1-216-025-91	METAL GLAZE 100	5%	1/10W
R223	1-216-097-91	METAL GLAZE 100K	5%	1/10W
R224	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W
R225	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R226	1-216-071-00	METAL GLAZE 8.2K	5%	1/10W
R227	1-216-061-00	METAL GLAZE 3.3K	5%	1/10W
R228	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R229	1-216-077-00	METAL GLAZE 15K	5%	1/10W
R230	1-216-067-00	METAL GLAZE 5.6K	5%	1/10W
R231	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R232	1-216-041-00	METAL GLAZE 470	5%	1/10W
R233	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R234	1-216-069-00	METAL GLAZE 6.8K	5%	1/10W
R235	1-216-055-00	METAL GLAZE 1.8K	5%	1/10W
R236	1-216-017-91	METAL GLAZE 47	5%	1/10W
R237	1-216-061-00	METAL GLAZE 3.3K	5%	1/10W
R238	1-216-063-91	METAL GLAZE 3.9K	5%	1/10W
R239	1-216-081-00	METAL GLAZE 22K	5%	1/10W
R240	1-216-063-91	METAL GLAZE 3.9K	5%	1/10W
R241	1-216-051-00	METAL GLAZE 1.2K	5%	1/10W
R242	1-216-121-91	METAL GLAZE 1M	5%	1/10W
R243	1-216-121-91	METAL GLAZE 1M	5%	1/10W
R244	1-216-049-91	METAL GLAZE 1K	5%	1/10W
R245	1-216-089-91	METAL GLAZE 47K	5%	1/10W
R246	1-216-077-00	METAL GLAZE 15K	5%	1/10W
R247	1-216-077-00	METAL GLAZE 15K	5%	1/10W
R248	1-216-033-00	METAL GLAZE 220	5%	1/10W
R249	1-216-049-91	METAL GLAZE 1K	5%	1/10W
R250	1-216-037-00	METAL GLAZE 330	5%	1/10W
R251	1-249-405-11	CARBON 100	5%	1/4W
R252	1-216-113-00	METAL GLAZE 470K	5%	1/10W
R253	1-216-121-91	METAL GLAZE 1M	5%	1/10W
R254	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W
R255	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R256	1-216-071-00	METAL GLAZE 8.2K	5%	1/10W
R257	1-216-061-00	METAL GLAZE 3.3K	5%	1/10W
R258	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R259	1-216-077-00	METAL GLAZE 15K	5%	1/10W
R260	1-216-067-00	METAL GLAZE 5.6K	5%	1/10W
R261	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R262	1-216-041-00	METAL GLAZE 470	5%	1/10W
R263	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R264	1-216-069-00	METAL GLAZE 6.8K	5%	1/10W
R265	1-216-055-00	METAL GLAZE 1.8K	5%	1/10W
R266	1-216-017-91	METAL GLAZE 47	5%	1/10W
R267	1-216-061-00	METAL GLAZE 3.3K	5%	1/10W
R268	1-216-063-91	METAL GLAZE 3.9K	5%	1/10W
R269	1-216-081-00	METAL GLAZE 22K	5%	1/10W
R270	1-216-063-91	METAL GLAZE 3.9K	5%	1/10W
R271	1-216-051-00	METAL GLAZE 1.2K	5%	1/10W
R272	1-216-121-91	METAL GLAZE 1M	5%	1/10W
R273	1-216-121-91	METAL GLAZE 1M	5%	1/10W

EDD

REF.NO.	PART NO.	DESCRIPTION			REMARK
R274	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R275	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R276	1-216-077-00	METAL GLAZE	15K	5%	1/10W
R277	1-216-077-00	METAL GLAZE	15K	5%	1/10W
R278	1-216-033-00	METAL GLAZE	220	5%	1/10W
R279	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R280	1-216-037-00	METAL GLAZE	330	5%	1/10W
R281	1-249-405-11	CARBON	100	5%	1/4W
R282	1-216-113-00	METAL GLAZE	470K	5%	1/10W
R283	1-216-121-91	METAL GLAZE	1M	5%	1/10W
R284	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R285	1-216-079-00	METAL GLAZE	18K	5%	1/10W
R286	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R287	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
R291	1-216-025-91	METAL GLAZE	100	5%	1/10W
R292	1-216-025-91	METAL GLAZE	100	5%	1/10W
R293	1-216-025-91	METAL GLAZE	100	5%	1/10W
R294	1-216-025-91	METAL GLAZE	100	5%	1/10W
R295	1-216-025-91	METAL GLAZE	100	5%	1/10W
R296	1-216-025-91	METAL GLAZE	100	5%	1/10W
R297	1-216-025-91	METAL GLAZE	100	5%	1/10W
R298	1-216-025-91	METAL GLAZE	100	5%	1/10W
R299	1-216-025-91	METAL GLAZE	100	5%	1/10W
R300	1-216-025-91	METAL GLAZE	100	5%	1/10W
R301	1-216-025-91	METAL GLAZE	100	5%	1/10W
R302	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R303	1-216-025-91	METAL GLAZE	100	5%	1/10W
R304	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R305	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R306	1-216-025-91	METAL GLAZE	100	5%	1/10W
R307	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R308	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R309	1-216-025-91	METAL GLAZE	100	5%	1/10W
R310	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R311	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R312	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R313	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R314	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R315	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R316	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R317	1-216-041-00	METAL GLAZE	470	5%	1/10W
R318	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R319	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R320	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R321	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W
R322	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R323	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R324	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W
R325	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R326	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W
R327	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R1000	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W

RESISTOR BLOCK

RB001 1-235-132-00 RES BLOCK 100
RB002 1-235-132-00 RES BLOCK 100
RB003 1-231-411-00 RESISTOR BLOCK 100K
RB004 1-235-132-00 RES BLOCK 100
RB005 1-235-132-00 RES BLOCK 100

RB006 1-231-411-00 RESISTOR BLOCK 100K
RB007 1-235-132-00 RES BLOCK 100
RB008 1-235-132-00 RES BLOCK 100
RB009 1-231-411-00 RESISTOR BLOCK 100K

VARIABLE RESISTOR

RV001 1-241-762-11 RES, ADJ, CARBON 2.2K
RV002 1-238-019-11 RES, ADJ, CARBON 47K
RV003 1-241-626-11 RES, ADJ, CARBON 470
RV004 1-241-762-11 RES, ADJ, CARBON 2.2K
RV005 1-241-762-11 RES, ADJ, CARBON 2.2K

RV006 1-241-759-21 RES, ADJ, CARBON 220
RV007 1-241-759-21 RES, ADJ, CARBON 220
RV008 1-241-759-21 RES, ADJ, CARBON 220
RV009 1-241-762-11 RES, ADJ, CARBON 2.2K
RV010 1-241-762-11 RES, ADJ, CARBON 2.2K

RV011 1-241-762-11 RES, ADJ, CARBON 2.2K
RV012 1-241-762-11 RES, ADJ, CARBON 2.2K
RV013 1-241-761-11 RES, ADJ, CARBON 1K

RELAY

RY001 1-515-716-11 RELAY (TQ2-5V)

SWITCH

SW001 1-554-123-00 SWITCH, SLIDE
SW002 1-554-123-00 SWITCH, SLIDE
SW003 1-554-123-00 SWITCH, SLIDE

TEST PIN

TP1 3-673-772-41 TERMINAL, TP
TP2 3-673-772-41 TERMINAL, TP
TP3 3-673-772-41 TERMINAL, TP
TP4 3-673-772-41 TERMINAL, TP
TP5 3-673-772-41 TERMINAL, TP

TP6 3-673-772-41 TERMINAL, TP
TP7 3-673-772-41 TERMINAL, TP
TP8 3-673-772-41 TERMINAL, TP
TP9 3-673-772-41 TERMINAL, TP
TP10 3-673-772-41 TERMINAL, TP

TP11 3-673-772-41 TERMINAL, TP
TP12 3-673-772-41 TERMINAL, TP
TP13 3-673-772-41 TERMINAL, TP
TP14 3-673-772-41 TERMINAL, TP
TP15 3-673-772-41 TERMINAL, TP

TP17 3-673-772-41 TERMINAL, TP
TP18 3-673-772-41 TERMINAL, TP
TP19 3-673-772-41 TERMINAL, TP
TP20 3-673-772-41 TERMINAL, TP
TP21 3-673-772-41 TERMINAL, TP

EDD DSP

REF.NO.	PART NO.	DESCRIPTION	REMARK
TP22	3-673-772-41	TERMINAL, TP	
TP23	3-673-772-41	TERMINAL, TP	
		CRYSTAL	
X001	1-577-611-11	OSCILALTOR, CERAMIC	
X002	1-527-722-00	OSCILLATOR, CRYSTAL	
X003	1-579-057-11	VIBRATOR, CRYSTAL	
X004	1-567-504-11	OSCILLATOR, CRYSTAL	
X005	1-567-505-11	OSCILLATOR, CRYSTAL	
X006	1-577-611-11	OSCILALTOR, CERAMIC	
		**********	
	* A-6258-510-A	DSP BOARD, COMPLETE	
		**********	
	1-506-748-11	PIN, DIN CONNECTOR (DIP) 96P	
	1-526-660-21	SOCKET, IC (DP) 32P	
	1-526-816-21	SOCKET, IC (DP) 24P	
	1-540-085-11	SOCKET, IC (PGA TYPE)	
	1-540-155-11	SOCKET, IC (PGA TYPE)	
	1-540-249-11	SOCKET, IC (PLCC)	
	* 2-182-909-01	LEVER, PC BOARD	
	* 4-053-788-01	SHEET, EARTH	
	7-626-320-11	PIN, SPRING 3X8	
	7-628-254-40	SCREW +PS 2.6X12	
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	
		CAPACITOR	
C001	1-104-665-11	ELECT 100MF 20% 16V	
C002	1-104-665-11	ELECT 100MF 20% 16V	
C003	1-104-665-11	ELECT 100MF 20% 16V	
C004	1-104-665-11	ELECT 100MF 20% 16V	
C005	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C006	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C007	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C008	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C009	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C010	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C011	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C012	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C013	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C014	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C015	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C016	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C017	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C018	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C019	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C020	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C021	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C022	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C023	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C024	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C025	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C026	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C027	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C028	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C029	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C030	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C031	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C032	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C033	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C034	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C035	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C036	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C037	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C038	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C039	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C040	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C041	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C042	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C043	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C044	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C045	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C046	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C047	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C048	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C049	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C050	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C051	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C052	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C053	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C054	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C055	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C056	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C057	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C058	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C059	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C060	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C061	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C062	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C063	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C064	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C065	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C066	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C067	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C068	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C069	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C070	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C071	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C072	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C073	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C074	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C075	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C076	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C077	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C078	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C079	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C080	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C081	1-163-038-91	CERAMIC CHIP 0.1MF	25V

DSP

REF.NO.	PART NO.	DESCRIPTION	REMARK
C082	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C083	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C084	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C085	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C086	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C087	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C088	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C089	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C090	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C091	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C092	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C093	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C094	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C095	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C096	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C097	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C098	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C099	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C100	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C101	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C102	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C103	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C104	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C105	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C106	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C107	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C108	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C109	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C110	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C111	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C112	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C113	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C114	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C115	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C116	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C117	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C118	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C119	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C120	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C121	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C122	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C123	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C124	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C125	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C126	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C127	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C128	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C129	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C130	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C131	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C132	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C133	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C134	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C135	1-163-038-91	CERAMIC CHIP 0.1MF	25V

REF.NO.	PART NO.	DESCRIPTION	REMARK
		IC	
IC001	8-759-244-85	IC TC74AC574F	
IC002	8-752-360-43	IC CXK1203AQ	
IC003	8-752-360-43	IC CXK1203AQ	
IC004	8-752-360-43	IC CXK1203AQ	
IC005	8-752-360-43	IC CXK1203AQ	
IC006	8-752-360-43	IC CXK1203AQ	
IC007	8-752-360-43	IC CXK1203AQ	
IC008	8-752-360-43	IC CXK1203AQ	
IC009	8-759-244-85	IC TC74AC574F	
IC010	8-752-360-43	IC CXK1203AQ	
IC011	8-752-360-43	IC CXK1203AQ	
IC012	8-752-360-43	IC CXK1203AQ	
IC013	8-752-360-43	IC CXK1203AQ	
IC014	8-752-360-43	IC CXK1203AQ	
IC015	8-752-360-43	IC CXK1203AQ	
IC016	8-752-360-43	IC CXK1203AQ	
IC017	8-759-244-75	IC TC74AC541F	
IC018	8-752-334-14	IC CXD2200G	
IC019	8-752-334-14	IC CXD2200G	
IC020	8-752-334-14	IC CXD2200G	
IC021	8-752-334-14	IC CXD2200G	
IC022	8-752-334-14	IC CXD2200G	
IC023	8-752-334-14	IC CXD2200G	
IC024	8-759-244-85	IC TC74AC574F	
IC025	8-752-360-43	IC CXK1203AQ	
IC026	8-752-360-43	IC CXK1203AQ	
IC027	8-752-360-43	IC CXK1203AQ	
IC028	8-752-360-43	IC CXK1203AQ	
IC029	8-752-360-43	IC CXK1203AQ	
IC030	8-752-360-43	IC CXK1203AQ	
IC031	8-752-360-43	IC CXK1203AQ	
IC032	8-759-244-85	IC TC74AC574F	
IC033	8-752-360-43	IC CXK1203AQ	
IC034	8-752-360-43	IC CXK1203AQ	
IC035	8-752-360-43	IC CXK1203AQ	
IC036	8-752-360-43	IC CXK1203AQ	
IC037	8-752-360-43	IC CXK1203AQ	
IC038	8-752-360-43	IC CXK1203AQ	
IC039	8-752-360-43	IC CXK1203AQ	
IC040	8-752-334-14	IC CXD2200G	
IC041	8-752-334-14	IC CXD2200G	
IC042	8-752-334-14	IC CXD2200G	
IC043	8-752-334-14	IC CXD2200G	
IC044	8-752-334-14	IC CXD2200G	
IC045	8-752-334-14	IC CXD2200G	
IC046	8-759-243-09	IC TC74AC74F	
IC047	8-759-244-00	IC TC74AC161F	
IC048	8-759-244-00	IC TC74AC161F	
IC049	8-759-244-00	IC TC74AC161F	
IC050	8-759-243-06	IC TC74AC04F	
IC051	8-759-243-39	IC TC74AC00F	
IC052	8-759-243-06	IC TC74AC04F	
IC053	8-759-244-85	IC TC74AC574F	
IC054	8-759-244-00	IC TC74AC161F	
IC055	8-759-244-00	IC TC74AC161F	

DSP

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC056	8-759-244-00	IC TC74AC161F	
IC057	8-759-244-00	IC TC74AC161F	
IC058	8-759-244-00	IC TC74AC161F	
IC059	8-759-243-06	IC TC74AC04F	
IC060	8-759-243-62	IC TC74AC32F	
IC061	8-759-244-00	IC TC74AC161F	
IC062	8-759-244-00	IC TC74AC161F	
IC063	8-759-244-00	IC TC74AC161F	
IC064	8-759-244-00	IC TC74AC161F	
IC065	8-759-244-00	IC TC74AC161F	
IC066	8-759-243-90	IC TC74AC157F	
IC067	8-759-079-45	IC TC74AC283F	
IC068	8-759-079-45	IC TC74AC283F	
IC069	8-759-179-32	IC TC74AC521F	
IC070	8-759-179-84	IC WS27C010L-12D-DC00	
IC071	8-759-179-85	IC WS27C010L-12D-DC01	
IC072	8-759-244-85	IC TC74AC574F	
IC073	8-759-244-85	IC TC74AC574F	
IC074	8-759-244-85	IC TC74AC574F	
IC075	8-759-244-85	IC TC74AC574F	
IC076	8-759-244-00	IC TC74AC161F	
IC077	8-759-244-00	IC TC74AC161F	
IC078	8-759-244-00	IC TC74AC161F	
IC079	8-759-244-85	IC TC74AC574F	
IC080	8-759-244-85	IC TC74AC574F	
IC081	8-759-243-74	IC TC74AC138F	
IC082	8-759-243-09	IC TC74AC74F	
IC083	8-759-179-78	IC WS57C49C-35S-DMS0	
IC084	8-759-244-85	IC TC74AC574F	
IC085	8-759-244-06	IC TC74AC164F	
IC086	8-759-244-00	IC TC74AC161F	
IC087	8-759-244-00	IC TC74AC161F	
IC088	8-759-244-00	IC TC74AC161F	
IC089	8-759-244-85	IC TC74AC574F	
IC090	8-759-244-06	IC TC74AC164F	
IC091	8-759-243-06	IC TC74AC04F	
IC092	8-759-243-39	IC TC74AC00F	
IC093	8-759-243-53	IC TC74AC10P	
IC094	8-759-243-39	IC TC74AC00F	
IC095	8-759-243-53	IC TC74AC10P	
IC096	8-759-244-00	IC TC74AC161F	
IC097	8-759-244-00	IC TC74AC161F	
IC098	8-759-244-00	IC TC74AC161F	
IC099	8-759-243-09	IC TC74AC74F	
IC100	8-759-244-85	IC TC74AC574F	
IC101	8-759-179-91	IC WS57C291B-35S-DINI	
IC102	8-759-243-50	IC TC74AC08F	
IC103	8-759-243-90	IC TC74AC157F	
IC104	8-759-243-39	IC TC74AC00F	
IC105	8-759-244-85	IC TC74AC574F	
IC106	8-759-244-75	IC TC74AC541F	
IC107	8-759-243-74	IC TC74AC138F	
IC108	8-759-233-38	IC TC74HC564AF	
IC109	8-759-233-38	IC TC74HC564AF	
IC110	8-759-232-52	IC TC74HC133AF	
IC111	8-759-243-06	IC TC74AC04F	
IC112	8-759-243-06	IC TC74AC04F	
IC113	8-759-244-85	IC TC74AC574F	
IC114	8-759-244-85	IC TC74AC574F	
IC115	8-759-244-85	IC TC74AC574F	
IC116	8-752-339-39	IC CXD2201G	
IC117	8-752-339-39	IC CXD2201G	
IC118	8-752-339-39	IC CXD2201G	
IC119	8-752-339-39	IC CXD2201G	
IC120	8-752-339-39	IC CXD2201G	
IC121	8-752-339-39	IC CXD2201G	
IC122	8-759-197-59	IC WS27C010L-12L-DC02	
IC123	8-759-342-46	IC WS27C010L-12L-DC3B	
IC124	8-759-197-61	IC WS27C010L-12L-DC04	
IC125	8-759-244-00	IC TC74AC161F	
IC126	8-759-244-00	IC TC74AC161F	
IC127	8-759-243-43	IC TC74AC02F	
IC128	8-759-244-00	IC TC74AC161F	
IC129	8-759-244-00	IC TC74AC161F	
IC130	8-759-244-00	IC TC74AC161F	
IC131	8-759-244-00	IC TC74AC161F	
IC132	8-759-244-00	IC TC74AC161F	
IC133	8-759-244-00	IC TC74AC161F	
IC134	8-759-244-00	IC TC74AC161F	
IC135	8-759-244-00	IC TC74AC161F	
IC136	8-759-179-79	IC WS57C49C-35S-DMS1	
IC137	8-759-342-47	IC WS57C49C-35S-DM2B	
IC138	8-759-243-70	IC TC74AC109F	
IC139	8-759-244-00	IC TC74AC161F	
IC140	8-759-244-00	IC TC74AC161F	
IC141	8-759-243-39	IC TC74AC00F	
IC142	8-759-243-50	IC TC74AC08F	
IC143	8-759-244-75	IC TC74AC541F	
IC144	8-752-360-43	IC CXK1203AQ	
IC145	8-752-360-43	IC CXK1203AQ	
IC146	8-752-360-43	IC CXK1203AQ	
IC147	8-759-243-90	IC TC74AC157F	
IC148	8-759-243-90	IC TC74AC157F	
IC149	8-759-243-90	IC TC74AC157F	
IC150	8-759-243-90	IC TC74AC157F	
IC151	8-759-243-90	IC TC74AC157F	
IC152	8-759-243-90	IC TC74AC157F	
IC153	8-759-243-90	IC TC74AC157F	
IC154	8-759-243-90	IC TC74AC157F	
IC155	8-759-243-90	IC TC74AC157F	
IC156	8-759-243-90	IC TC74AC157F	
IC157	8-759-243-90	IC TC74AC157F	
IC158	8-759-243-90	IC TC74AC157F	
IC159	8-752-340-52	IC CXK48324Q	
IC160	8-752-340-52	IC CXK48324Q	
IC161	8-752-340-52	IC CXK48324Q	
IC162	8-752-340-52	IC CXK48324Q	
IC163	8-752-340-52	IC CXK48324Q	
IC164	8-752-340-52	IC CXK48324Q	
IC165	8-752-340-52	IC CXK48324Q	
IC166	8-752-340-52	IC CXK48324Q	
IC167	8-759-245-77	IC TC74ACT574F	

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC168	8-759-245-77	IC TC74ACT574F	
IC169	8-759-245-77	IC TC74ACT574F	
IC170	8-759-245-77	IC TC74ACT574F	
IC171	8-759-245-77	IC TC74ACT574F	
IC172	8-759-245-77	IC TC74ACT574F	
IC173	8-759-244-85	IC TC74AC574F	
IC174	8-759-244-85	IC TC74AC574F	
IC175	8-759-244-85	IC TC74AC574F	

RESISTOR BLOCK

RB001	1-239-751-11	RESISTOR BLOCK 22	
RB002	1-239-751-11	RESISTOR BLOCK 22	
RB003	1-231-411-00	RESISTOR BLOCK 100K	
RB005	1-239-751-11	RESISTOR BLOCK 22	
RB006	1-239-751-11	RESISTOR BLOCK 22	
RB007	1-231-411-00	RESISTOR BLOCK 100K	
RB009	1-239-751-11	RESISTOR BLOCK 22	
RB010	1-239-751-11	RESISTOR BLOCK 22	
RB011	1-231-411-00	RESISTOR BLOCK 100K	
RB013	1-239-751-11	RESISTOR BLOCK 22	
RB014	1-239-751-11	RESISTOR BLOCK 22	
RB015	1-231-411-00	RESISTOR BLOCK 100K	
RB017	1-235-132-00	RES BLOCK 100	
RB018	1-235-132-00	RES BLOCK 100	
RB019	1-231-411-00	RESISTOR BLOCK 100K	
RB020	1-231-385-00	RESISTOR BLOCK 4.7K	
RB021	1-231-385-00	RESISTOR BLOCK 4.7K	
RB023	1-231-411-00	RESISTOR BLOCK 100K	
RB024	1-235-132-00	RES BLOCK 100	
RB025	1-235-132-00	RES BLOCK 100	
RB026	1-231-411-00	RESISTOR BLOCK 100K	
RB027	1-231-411-00	RESISTOR BLOCK 100K	
RB028	1-235-132-00	RES BLOCK 100	
RB029	1-235-132-00	RES BLOCK 100	
RB030	1-235-132-00	RES BLOCK 100	
RB031	1-235-132-00	RES BLOCK 100	
RB032	1-239-751-11	RESISTOR BLOCK 22	

TEST PIN

TP1	3-673-772-01	TERMINAL, TP
TP2	3-673-772-01	TERMINAL, TP
TP3	3-673-772-01	TERMINAL, TP
TP4	3-673-772-01	TERMINAL, TP

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* A-6258-511-A MIX BOARD, COMPLETE

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	1-506-748-11	PIN, DIN CONNECTOR (DIP) 96P
	1-526-816-21	SOCKET, IC (DP) 24P
	1-540-155-11	SOCKET, IC (PGA TYPE)
*	2-182-909-01	LEVER, PC BOARD
*	4-053-788-01	SHEET, EARTH
	7-626-320-11	PIN, SPRING 3X8
	7-628-254-40	SCREW +PS 2.6X12
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3

BAND PASS FILTER

BPF001	1-235-277-00	FILTER, BAND PASS
BPF002	1-235-439-11	FILTER, BAND PASS (4.43MHZ)

CAPACITOR

C001	1-104-665-11	ELECT	100MF	20%	16V
C002	1-104-665-11	ELECT	100MF	20%	16V
C003	1-104-665-11	ELECT	100MF	20%	16V
C004	1-104-665-11	ELECT	100MF	20%	16V
C005	1-104-665-11	ELECT	100MF	20%	16V
C006	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C007	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C008	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C009	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C010	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C011	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C012	1-124-907-11	ELECT	10MF	20%	50V
C013	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C014	1-124-907-11	ELECT	10MF	20%	50V
C015	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C016	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C017	1-124-907-11	ELECT	10MF	20%	50V
C018	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C019	1-124-907-11	ELECT	10MF	20%	50V
C020	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C021	1-104-665-11	ELECT	100MF	20%	16V
C022	1-104-665-11	ELECT	100MF	20%	16V
C023	1-104-665-11	ELECT	100MF	20%	16V
C024	1-124-907-11	ELECT	10MF	20%	50V
C025	1-124-907-11	ELECT	10MF	20%	50V
C027	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C028	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C029	1-104-665-11	ELECT	100MF	20%	16V
C030	1-124-472-11	ELECT	470MF	20%	10V
C031	1-124-907-11	ELECT	10MF	20%	50V
C032	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C033	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C034	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C035	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C036	1-104-665-11	ELECT	100MF	20%	16V
C037	1-124-907-11	ELECT	10MF	20%	50V
C038	1-124-907-11	ELECT	10MF	20%	50V
C039	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C040	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C041	1-104-665-11	ELECT	100MF	20%	16V
C042	1-124-472-11	ELECT	470MF	20%	10V
C043	1-124-907-11	ELECT	10MF	20%	50V
C044	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C045	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C046	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V

MIX

REF.NO.	PART NO.	DESCRIPTION	REMARK
C047	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C050	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C051	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C052	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C053	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C054	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C055	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C056	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C057	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C058	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C059	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C060	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C061	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C062	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C063	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C064	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C065	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C066	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C067	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C068	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C069	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C072	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C073	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C074	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C075	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C076	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C077	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C078	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C079	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C080	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C081	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C082	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C083	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C084	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C085	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C086	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C087	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C088	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C089	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C090	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C091	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C092	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C093	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C094	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C095	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C096	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C097	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C098	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C099	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C100	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C101	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C102	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C103	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C104	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C105	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C106	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C107	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C108	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C109	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C110	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C111	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C112	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C113	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C114	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C115	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C116	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C117	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C118	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C119	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C120	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C121	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C122	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C123	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C124	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C125	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C126	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C127	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C128	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C129	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C130	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C131	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C132	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C133	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C134	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C135	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C136	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C137	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C138	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C139	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C140	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C141	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C142	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C143	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C144	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C145	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C146	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C147	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C148	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C149	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C150	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C151	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C152	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C153	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C154	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C155	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C156	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C157	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C158	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C159	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C160	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C161	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C162	1-163-038-91	CERAMIC CHIP 0.1MF	25V

MIX

REF.NO.	PART NO.	DESCRIPTION	REMARK
C163	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C164	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C165	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C166	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C167	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C168	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C169	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C170	1-163-038-91	CERAMIC CHIP 0.1MF	25V
		TRIMMER	
CV001	1-141-260-00	TRIMMER, CERAMIC	
CV002	1-141-260-00	TRIMMER, CERAMIC	
		DIODE	
D001	8-719-911-19	DIODE 1SS119-25	
		DELAY LINE	
DL001	1-415-675-11	DELAY LINE	
DL002	1-415-675-11	DELAY LINE	
		TP TERMINAL	
E1	3-673-772-01	TERMINAL, TP	
E2	3-673-772-01	TERMINAL, TP	
E3	3-673-772-01	TERMINAL, TP	
E4	3-673-772-01	TERMINAL, TP	
E5	3-673-772-01	TERMINAL, TP	
E6	3-673-772-01	TERMINAL, TP	
		FILTER	
EMI001	1-236-129-11	ENCAPSULATED COMPONENT	
EMI002	1-236-129-11	ENCAPSULATED COMPONENT	
		FERRITE BEAD	
FB001	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
		IC	
IC001	8-752-360-43	IC CXK1203AQ	
IC002	8-752-360-43	IC CXK1203AQ	
IC003	8-752-360-43	IC CXK1203AQ	
IC004	8-759-179-29	IC M66251FP	
IC005	8-759-179-29	IC M66251FP	
IC006	8-759-179-29	IC M66251FP	
IC007	8-759-179-29	IC M66251FP	
IC008	8-759-179-29	IC M66251FP	
IC009	8-759-179-29	IC M66251FP	
IC010	8-759-179-29	IC M66251FP	
IC011	8-759-179-29	IC M66251FP	
IC012	8-752-334-14	IC CXD2200G	
IC013	8-759-179-90	IC WS57C291B-35S-MINI	
IC014	8-752-334-14	IC CXD2200G	
IC015	8-759-243-06	IC TC74AC04F	
IC016	8-759-239-98	IC TC74HC30AF	
IC017	8-759-243-06	IC TC74AC04F	
IC018	8-759-926-11	IC SN74HC138ANS	
IC019	8-759-232-86	IC TC74HC238AF	
IC020	8-759-926-11	IC SN74HC138ANS	
IC021	8-759-926-11	IC SN74HC138ANS	
IC022	8-759-244-00	IC TC74AC161F	
IC023	8-759-244-00	IC TC74AC161F	
IC024	8-759-243-09	IC TC74AC74F	
IC025	8-759-243-39	IC TC74AC00F	
IC026	8-759-244-12	IC TC74AC175F	
IC027	8-759-244-75	IC TC74AC541F	
IC028	8-759-244-00	IC TC74AC161F	
IC029	8-759-244-00	IC TC74AC161F	
IC030	8-759-243-90	IC TC74AC157F	
IC031	8-759-242-51	IC TC74AC86F	
IC032	8-759-243-06	IC TC74AC04F	
IC033	8-759-244-00	IC TC74AC161F	
IC034	8-759-244-85	IC TC74AC574F	
IC035	8-759-243-39	IC TC74AC00F	
IC036	8-759-243-43	IC TC74AC02F	
IC037	8-759-244-00	IC TC74AC161F	
IC038	8-759-244-00	IC TC74AC161F	
IC039	8-759-244-00	IC TC74AC161F	
IC040	8-759-926-19	IC SN74HC158ANS	
IC041	8-759-244-75	IC TC74AC541F	
IC042	8-759-243-09	IC TC74AC74F	
IC043	8-759-243-09	IC TC74AC74F	
IC044	8-759-243-09	IC TC74AC74F	
IC045	8-759-243-39	IC TC74AC00F	
IC046	8-759-244-00	IC TC74AC161F	
IC047	8-759-244-00	IC TC74AC161F	
IC048	8-759-244-00	IC TC74AC161F	
IC049	8-759-243-62	IC TC74AC32F	
IC050	8-759-244-85	IC TC74AC574F	
IC051	8-759-233-38	IC TC74HC564AF	
IC052	8-759-233-38	IC TC74HC564AF	
IC053	8-759-233-38	IC TC74HC564AF	
IC054	8-759-233-38	IC TC74HC564AF	
IC055	8-759-233-38	IC TC74HC564AF	
IC056	8-759-244-00	IC TC74AC161F	
IC057	8-759-244-00	IC TC74AC161F	
IC058	8-759-244-00	IC TC74AC161F	
IC059	8-759-244-00	IC TC74AC161F	
IC060	8-759-244-00	IC TC74AC161F	
IC061	8-759-244-00	IC TC74AC161F	
IC062	8-759-244-00	IC TC74AC161F	
IC063	8-759-244-00	IC TC74AC161F	
IC064	8-759-244-00	IC TC74AC161F	
IC065	8-759-244-00	IC TC74AC161F	
IC066	8-759-244-00	IC TC74AC161F	
IC067	8-759-244-00	IC TC74AC161F	
IC068	8-759-244-00	IC TC74AC161F	

MIX

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC069	8-759-244-00	IC TC74AC161F	
IC070	8-752-340-52	IC CXK48324Q	
IC071	8-752-340-52	IC CXK48324Q	
IC072	8-752-340-52	IC CXK48324Q	
IC073	8-752-338-46	IC CXD1178Q	
IC074	8-752-033-07	IC CXA1145M	
IC075	8-752-033-07	IC CXA1145M	
IC076	8-759-244-85	IC TC74AC574F	
IC077	8-759-244-85	IC TC74AC574F	
IC078	8-759-244-85	IC TC74AC574F	
IC079	8-759-244-85	IC TC74AC574F	
IC080	8-759-244-85	IC TC74AC574F	
IC081	8-759-244-85	IC TC74AC574F	
IC082	8-759-936-13	IC SN74AS885NT	
IC083	8-759-936-13	IC SN74AS885NT	
IC084	8-759-936-13	IC SN74AS885NT	
IC085	8-759-936-13	IC SN74AS885NT	
IC086	8-759-936-13	IC SN74AS885NT	
IC087	8-759-936-13	IC SN74AS885NT	
IC088	8-759-936-13	IC SN74AS885NT	
IC089	8-759-936-13	IC SN74AS885NT	
IC090	8-759-936-13	IC SN74AS885NT	
IC091	8-759-936-13	IC SN74AS885NT	
IC092	8-759-936-13	IC SN74AS885NT	
IC093	8-759-936-13	IC SN74AS885NT	
IC094	8-759-934-10	IC SN74ALS30ANS	
IC095	8-759-934-10	IC SN74ALS30ANS	
IC096	8-759-243-06	IC TC74AC04F	
IC097	8-759-243-09	IC TC74AC74F	
IC098	8-759-515-64	IC IDT74FCT821ATP	
IC099	8-759-515-64	IC IDT74FCT821ATP	
IC100	8-759-515-64	IC IDT74FCT821ATP	
IC101	8-759-515-64	IC IDT74FCT821ATP	
IC102	8-759-515-64	IC IDT74FCT821ATP	
IC103	8-759-515-64	IC IDT74FCT821ATP	
IC104	8-759-515-64	IC IDT74FCT821ATP	
IC105	8-759-515-64	IC IDT74FCT821ATP	
IC106	8-759-515-64	IC IDT74FCT821ATP	
IC107	8-759-515-64	IC IDT74FCT821ATP	
IC108	8-759-515-64	IC IDT74FCT821ATP	
IC109	8-759-515-64	IC IDT74FCT821ATP	
IC110	8-759-179-77	IC WS57C49C-35S-MGAM	
IC111	8-759-179-77	IC WS57C49C-35S-MGAM	
IC112	8-759-179-77	IC WS57C49C-35S-MGAM	
IC113	8-759-179-77	IC WS57C49C-35S-MGAM	
IC114	8-759-179-77	IC WS57C49C-35S-MGAM	
IC115	8-759-179-77	IC WS57C49C-35S-MGAM	
IC116	8-759-179-29	IC M66251FP	
IC117	8-759-179-29	IC M66251FP	
IC118	8-759-179-29	IC M66251FP	
IC119	8-759-179-29	IC M66251FP	
IC120	8-759-179-29	IC M66251FP	
IC121	8-759-179-29	IC M66251FP	
IC122	8-759-243-90	IC TC74AC157F	
IC123	8-759-243-90	IC TC74AC157F	
IC124	8-759-243-90	IC TC74AC157F	
IC125	8-759-243-90	IC TC74AC157F	
IC126	8-759-243-90	IC TC74AC157F	
IC127	8-759-243-90	IC TC74AC157F	
IC128	8-759-243-90	IC TC74AC157F	
IC129	8-759-243-90	IC TC74AC157F	
IC130	8-759-243-90	IC TC74AC157F	
IC131	8-759-243-90	IC TC74AC157F	
IC132	8-759-243-90	IC TC74AC157F	
IC133	8-759-243-90	IC TC74AC157F	
IC134	8-759-244-85	IC TC74AC574F	
IC135	8-759-244-85	IC TC74AC574F	
IC136	8-752-360-43	IC CXK1203AQ	
IC137	8-752-360-43	IC CXK1203AQ	
IC138	8-752-360-43	IC CXK1203AQ	
IC139	8-752-360-43	IC CXK1203AQ	
IC140	8-759-244-85	IC TC74AC574F	
IC141	8-759-244-85	IC TC74AC574F	
IC142	8-759-244-85	IC TC74AC574F	
IC143	8-759-244-85	IC TC74AC574F	
IC144	8-759-244-85	IC TC74AC574F	
IC145	8-759-244-85	IC TC74AC574F	
IC146	8-759-243-06	IC TC74AC04F	
		COIL	
L001	1-410-466-41	INDUCTOR 4.7UH	
		FILTER	
LPF001	1-236-304-11	FILTER, LOW PASS	
LPF002	1-236-304-11	FILTER, LOW PASS	
LPF003	1-236-304-11	FILTER, LOW PASS	
		TRANSISTOR	
Q9	8-729-900-53	TRANSISTOR DTC114EK	
Q001	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q002	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q003	8-729-216-22	TRANSISTOR 2SA1162-G	
Q004	8-729-216-22	TRANSISTOR 2SA1162-G	
Q005	8-729-216-22	TRANSISTOR 2SA1162-G	
Q006	8-729-216-22	TRANSISTOR 2SA1162-G	
Q007	8-729-216-22	TRANSISTOR 2SA1162-G	
Q008	8-729-216-22	TRANSISTOR 2SA1162-G	
		RESISTOR	
R4	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R5	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R7	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R45	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R001	1-216-049-91	METAL GLAZE 1K 5% 1/10W	
R002	1-216-049-91	METAL GLAZE 1K 5% 1/10W	
R003	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R006	1-216-049-91	METAL GLAZE 1K 5% 1/10W	
R008	1-216-073-00	METAL GLAZE 10K 5% 1/10W	

MIX

REF.NO.	PART NO.	DESCRIPTION	REMARK
R009	1-216-049-91	METAL GLAZE 1K 5% 1/10W	
R010	1-216-031-00	METAL GLAZE 180 5% 1/10W	
R011	1-216-055-00	METAL GLAZE 1.8K 5% 1/10W	
R012	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R013	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R014	1-216-031-00	METAL GLAZE 180 5% 1/10W	
R015	1-216-055-00	METAL GLAZE 1.8K 5% 1/10W	
R016	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R017	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R018	1-216-031-00	METAL GLAZE 180 5% 1/10W	
R019	1-216-055-00	METAL GLAZE 1.8K 5% 1/10W	
R020	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R021	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R022	1-216-685-11	METAL CHIP 27K 0.50% 1/10W	
R023	1-216-049-91	METAL GLAZE 1K 5% 1/10W	
R024	1-216-049-91	METAL GLAZE 1K 5% 1/10W	
R025	1-216-049-91	METAL GLAZE 1K 5% 1/10W	
R026	1-216-049-91	METAL GLAZE 1K 5% 1/10W	
R027	1-216-022-00	METAL GLAZE 75 5% 1/10W	
R028	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R029	1-216-077-00	METAL GLAZE 15K 5% 1/10W	
R030	1-216-685-11	METAL CHIP 27K 0.50% 1/10W	
R031	1-216-049-91	METAL GLAZE 1K 5% 1/10W	
R032	1-216-049-91	METAL GLAZE 1K 5% 1/10W	
R033	1-216-049-91	METAL GLAZE 1K 5% 1/10W	
R034	1-216-049-91	METAL GLAZE 1K 5% 1/10W	
R035	1-216-022-00	METAL GLAZE 75 5% 1/10W	
R036	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R037	1-216-077-00	METAL GLAZE 15K 5% 1/10W	
R041	1-216-009-00	METAL GLAZE 22 5% 1/10W	
R042	1-216-097-91	METAL GLAZE 100K 5% 1/10W	
R044	1-216-009-00	METAL GLAZE 22 5% 1/10W	
R046	1-216-045-00	METAL GLAZE 680 5% 1/10W	

RESISTOR BLOCK

RB001	1-239-751-11	RESISTOR BLOCK 22
RB002	1-239-751-11	RESISTOR BLOCK 22
RB003	1-239-751-11	RESISTOR BLOCK 22
RB004	1-239-751-11	RESISTOR BLOCK 22
RB005	1-231-411-00	RESISTOR BLOCK 100K
RB007	1-231-411-00	RESISTOR BLOCK 100K
RB009	1-239-751-11	RESISTOR BLOCK 22
RB010	1-239-751-11	RESISTOR BLOCK 22
RB011	1-231-411-00	RESISTOR BLOCK 100K
RB013	1-239-751-11	RESISTOR BLOCK 22
RB014	1-239-751-11	RESISTOR BLOCK 22
RB015	1-231-411-00	RESISTOR BLOCK 100K
RB017	1-239-751-11	RESISTOR BLOCK 22
RB018	1-239-751-11	RESISTOR BLOCK 22
RB019	1-231-411-00	RESISTOR BLOCK 100K
RB021	1-239-751-11	RESISTOR BLOCK 22
RB022	1-239-751-11	RESISTOR BLOCK 22
RB023	1-231-411-00	RESISTOR BLOCK 100K
RB025	1-239-751-11	RESISTOR BLOCK 22
RB026	1-239-751-11	RESISTOR BLOCK 22
RB027	1-231-411-00	RESISTOR BLOCK 100K
RB029	1-239-751-11	RESISTOR BLOCK 22
RB030	1-239-751-11	RESISTOR BLOCK 22
RB031	1-231-411-00	RESISTOR BLOCK 100K
RB033	1-239-751-11	RESISTOR BLOCK 22
RB034	1-239-751-11	RESISTOR BLOCK 22
RB035	1-231-411-00	RESISTOR BLOCK 100K
RB037	1-239-751-11	RESISTOR BLOCK 22
RB038	1-239-751-11	RESISTOR BLOCK 22
RB039	1-231-411-00	RESISTOR BLOCK 100K
RB041	1-239-751-11	RESISTOR BLOCK 22
RB042	1-239-751-11	RESISTOR BLOCK 22
RB043	1-231-411-00	RESISTOR BLOCK 100K
RB045	1-239-751-11	RESISTOR BLOCK 22
RB046	1-239-751-11	RESISTOR BLOCK 22
RB047	1-231-411-00	RESISTOR BLOCK 100K
RB049	1-235-132-00	RES BLOCK 100
RB050	1-235-132-00	RES BLOCK 100
RB051	1-231-411-00	RESISTOR BLOCK 100K
RB052	1-235-132-00	RES BLOCK 100
RB053	1-235-132-00	RES BLOCK 100
RB054	1-231-411-00	RESISTOR BLOCK 100K
RB055	1-235-132-00	RES BLOCK 100
RB056	1-235-132-00	RES BLOCK 100
RB057	1-231-411-00	RESISTOR BLOCK 100K
RB058	1-235-132-00	RES BLOCK 100
RB059	1-231-411-00	RESISTOR BLOCK 100K
RB060	1-231-385-00	RESISTOR BLOCK 4.7K
RB061	1-231-385-00	RESISTOR BLOCK 4.7K
RB062	1-231-385-00	RESISTOR BLOCK 4.7K
RB063	1-231-385-00	RESISTOR BLOCK 4.7K
RB064	1-231-385-00	RESISTOR BLOCK 4.7K
RB065	1-231-385-00	RESISTOR BLOCK 4.7K
RB066	1-235-132-00	RES BLOCK 100

RELAY

RY001	1-515-716-11	RELAY (TQ2-5V)

TEST PIN

TP1	3-673-772-41	TERMINAL, TP
TP2	3-673-772-41	TERMINAL, TP
TP3	3-673-772-41	TERMINAL, TP
TP4	3-673-772-41	TERMINAL, TP
TP5	3-673-772-41	TERMINAL, TP
TP6	3-673-772-41	TERMINAL, TP

CRYSTAL

X001	1-567-505-11	OSCILLATOR, CRYSTAL
X002	1-567-504-11	OSCILLATOR, CRYSTAL

PSC

REF.NO.	PART NO.	DESCRIPTION			REMARK
	*A-6258-512-A	PSC BOARD, COMPLETE			
		**********			
	1-526-816-21	SOCKET, IC (DP) 24P			
	1-540-069-11	SOCKET, IC (IC113) 84P			
	*2-182-909-01	LEVER, PC BOARD			
	*4-053-788-01	SHEET, EARTH			
	7-626-320-11	PIN, SPRING 3X8			
	7-628-254-40	SCREW +PS 2.6X12			
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3			
	CAPACITOR				
C1	1-104-665-11	ELECT	100MF	20% 16V	
C2	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C3	1-104-665-11	ELECT	100MF	20% 16V	
C4	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C5	1-104-665-11	ELECT	100MF	20% 16V	
C6	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C7	1-102-106-00	CERAMIC	100PF	10% 50V	
C8	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C9	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C10	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C11	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C12	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C13	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C14	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C15	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C16	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C17	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C18	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C19	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C20	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C21	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C22	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C23	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C24	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C25	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C26	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C27	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C28	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C29	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C30	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C31	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C32	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C33	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C34	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C35	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C36	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C37	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C38	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C39	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C40	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C41	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C42	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C43	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C44	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C45	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C46	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C47	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C48	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C49	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C50	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C51	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C52	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C53	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C54	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C55	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C56	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C57	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C58	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C59	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C60	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C61	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C62	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C63	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C64	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C65	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C66	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C67	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C68	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C69	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C70	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C71	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C72	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C73	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C74	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C75	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C76	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C77	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C78	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C79	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C80	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C81	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C82	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C83	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C84	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C85	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C86	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C87	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C88	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C89	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C90	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C91	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C92	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C93	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C94	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C95	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C96	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C97	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C98	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C99	1-162-806-11	CERAMIC	0.1MF	10% 50V	
C100	1-162-806-11	CERAMIC	0.1MF	10% 50V	

PSC

REF.NO.	PART NO.	DESCRIPTION				REMARK
C101	1-162-806-11	CERAMIC	0.1MF	10%	50V	
C102	1-162-806-11	CERAMIC	0.1MF	10%	50V	
C103	1-162-806-11	CERAMIC	0.1MF	10%	50V	
C104	1-162-806-11	CERAMIC	0.1MF	10%	50V	
C105	1-162-806-11	CERAMIC	0.1MF	10%	50V	
C106	1-162-806-11	CERAMIC	0.1MF	10%	50V	
C107	1-162-806-11	CERAMIC	0.1MF	10%	50V	
C108	1-162-806-11	CERAMIC	0.1MF	10%	50V	
C109	1-162-806-11	CERAMIC	0.1MF	10%	50V	
C110	1-162-806-11	CERAMIC	0.1MF	10%	50V	
C111	1-162-806-11	CERAMIC	0.1MF	10%	50V	
C112	1-162-806-11	CERAMIC	0.1MF	10%	50V	
C113	1-162-806-11	CERAMIC	0.1MF	10%	50V	
C114	1-162-806-11	CERAMIC	0.1MF	10%	50V	
C115	1-162-806-11	CERAMIC	0.1MF	10%	50V	
C116	1-162-806-11	CERAMIC	0.1MF	10%	50V	
C117	1-162-806-11	CERAMIC	0.1MF	10%	50V	
C118	1-162-806-11	CERAMIC	0.1MF	10%	50V	
C119	1-162-806-11	CERAMIC	0.1MF	10%	50V	
C120	1-162-806-11	CERAMIC	0.1MF	10%	50V	
C121	1-162-806-11	CERAMIC	0.1MF	10%	50V	
C122	1-162-806-11	CERAMIC	0.1MF	10%	50V	
C123	1-162-806-11	CERAMIC	0.1MF	10%	50V	
C124	1-162-806-11	CERAMIC	0.1MF	10%	50V	
C125	1-162-806-11	CERAMIC	0.1MF	10%	50V	
C126	1-162-806-11	CERAMIC	0.1MF	10%	50V	
C127	1-162-806-11	CERAMIC	0.1MF	10%	50V	
C128	1-162-806-11	CERAMIC	0.1MF	10%	50V	
C129	1-162-806-11	CERAMIC	0.1MF	10%	50V	
C130	1-162-806-11	CERAMIC	0.1MF	10%	50V	
C131	1-162-806-11	CERAMIC	0.1MF	10%	50V	
C132	1-162-806-11	CERAMIC	0.1MF	10%	50V	
C133	1-162-806-11	CERAMIC	0.1MF	10%	50V	

CONNECTOR

CN1	1-506-748-11	PIN, DIN CONNECTOR (DIP) 96P
CN2	1-506-748-11	PIN, DIN CONNECTOR (DIP) 96P
CN3	1-506-748-11	PIN, DIN CONNECTOR (DIP) 96P

IC

IC1	8-759-234-07	IC TC74AC00P
IC2	8-759-243-42	IC TC74AC02P
IC3	8-759-257-56	IC MC74AC160N
IC4	8-759-243-99	IC TC74AC161P
IC5	8-759-243-99	IC TC74AC161P
IC6	8-759-243-73	IC TC74AC138P
IC7	8-759-243-61	IC TC74AC32P
IC8	8-759-243-53	IC TC74AC10P
IC9	8-759-179-86	IC WS57C291B-35S-PAD0
IC10	8-759-179-87	IC WS57C291B-35S-PAD1
IC11	8-759-179-88	IC WS57C291B-35S-PAD2
IC12	8-759-179-89	IC WS57C291B-35S-PAD3
IC13	8-759-243-53	IC TC74AC10P
IC14	8-759-243-53	IC TC74AC10P
IC15	8-759-243-53	IC TC74AC10P
IC16	8-759-243-46	IC TC74AC04P
IC17	8-759-179-30	IC TC74ACT574P
IC18	8-759-179-30	IC TC74ACT574P
IC19	8-759-179-30	IC TC74ACT574P
IC20	8-759-244-84	IC TC74AC574P
IC21	8-759-244-84	IC TC74AC574P
IC22	8-759-244-84	IC TC74AC574P
IC23	8-759-243-42	IC TC74AC02P
IC24	8-759-257-56	IC MC74AC160N
IC25	8-759-243-99	IC TC74AC161P
IC26	8-759-243-99	IC TC74AC161P
IC27	8-759-243-99	IC TC74AC161P
IC28	8-759-243-73	IC TC74AC138P
IC29	8-759-244-84	IC TC74AC574P
IC30	8-759-243-46	IC TC74AC04P
IC31	8-759-243-53	IC TC74AC10P
IC32	8-759-244-11	IC TC74AC175P
IC33	8-759-244-74	IC TC74AC541P
IC34	8-759-243-42	IC TC74AC02P
IC35	8-759-257-56	IC MC74AC160N
IC36	8-759-243-99	IC TC74AC161P
IC37	8-759-243-99	IC TC74AC161P
IC38	8-759-243-99	IC TC74AC161P
IC39	8-759-243-73	IC TC74AC138P
IC40	8-759-244-84	IC TC74AC574P
IC41	8-759-244-11	IC TC74AC175P
IC42	8-759-244-74	IC TC74AC541P
IC43	8-759-243-42	IC TC74AC02P
IC44	8-759-257-56	IC MC74AC160N
IC45	8-759-243-99	IC TC74AC161P
IC46	8-759-243-99	IC TC74AC161P
IC47	8-759-243-99	IC TC74AC161P
IC48	8-759-243-73	IC TC74AC138P
IC49	8-759-244-84	IC TC74AC574P
IC50	8-759-244-11	IC TC74AC175P
IC51	8-759-244-74	IC TC74AC541P
IC52	8-759-243-53	IC TC74AC10P
IC53	8-759-243-67	IC TC74ACT86P
IC54	8-759-243-67	IC TC74ACT86P
IC55	8-759-179-06	IC WS57C291C-35S-810H
IC56	8-759-179-07	IC WS57C291C-35S-810L
IC57	8-759-243-67	IC TC74ACT86P
IC58	8-759-243-67	IC TC74ACT86P
IC59	8-759-179-06	IC WS57C291C-35S-810H
IC60	8-759-179-07	IC WS57C291C-35S-810L
IC61	8-759-243-67	IC TC74ACT86P
IC62	8-759-243-67	IC TC74ACT86P
IC63	8-759-179-06	IC WS57C291C-35S-810H
IC64	8-759-179-07	IC WS57C291C-35S-810L
IC65	8-759-244-74	IC TC74AC541P
IC66	8-759-244-74	IC TC74AC541P
IC67	8-759-244-74	IC TC74AC541P
IC68	8-759-244-84	IC TC74AC574P
IC69	8-759-244-84	IC TC74AC574P
IC70	8-759-244-84	IC TC74AC574P
IC71	8-759-244-74	IC TC74AC541P

PSC

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC72	8-759-244-74	IC TC74AC541P	
IC73	8-759-244-74	IC TC74AC541P	
IC74	8-759-244-84	IC TC74AC574P	
IC75	8-759-244-84	IC TC74AC574P	
IC76	8-759-244-84	IC TC74AC574P	
IC77	8-759-244-74	IC TC74AC541P	
IC78	8-759-244-74	IC TC74AC541P	
IC79	8-759-244-74	IC TC74AC541P	
IC80	8-759-244-84	IC TC74AC574P	
IC81	8-759-244-84	IC TC74AC574P	
IC82	8-759-244-74	IC TC74AC541P	
IC83	8-759-244-74	IC TC74AC541P	
IC84	8-759-244-74	IC TC74AC541P	
IC85	8-759-244-74	IC TC74AC541P	
IC86	8-759-244-84	IC TC74AC574P	
IC87	8-759-244-84	IC TC74AC574P	
IC88	8-759-004-91	IC MC74HC688N	
IC89	8-759-244-84	IC TC74AC574P	
IC90	8-759-244-84	IC TC74AC574P	
IC91	8-759-244-84	IC TC74AC574P	
IC92	8-759-981-25	IC IDT7132SA-55P	
IC93	8-759-981-25	IC IDT7132SA-55P	
IC94	8-759-981-25	IC IDT7132SA-55P	
IC95	8-759-981-25	IC IDT7132SA-55P	
IC96	8-759-981-25	IC IDT7132SA-55P	
IC97	8-759-981-25	IC IDT7132SA-55P	
IC98	8-759-243-46	IC TC74AC04P	
IC99	8-759-243-42	IC TC74AC02P	
IC100	8-759-243-64	IC TC74AC74P	
IC101	8-759-243-64	IC TC74AC74P	
IC102	8-759-243-64	IC TC74AC74P	
IC103	8-759-179-25	IC EPM5130LC-PSCV	
IC104	8-759-179-25	IC EPM5130LC-PSCV	
IC105	8-759-179-25	IC EPM5130LC-PSCV	
IC106	8-759-244-74	IC TC74AC541P	
IC107	8-759-244-74	IC TC74AC541P	
IC108	8-759-244-74	IC TC74AC541P	
IC109	8-759-243-46	IC TC74AC04P	
IC110	8-759-243-46	IC TC74AC04P	
IC111	8-759-916-42	IC SN74HC133N	
IC112	8-759-243-73	IC TC74AC138P	
IC113	8-759-243-61	IC TC74AC32P	
IC114	8-759-243-67	IC TC74ACT86P	
IC115	8-759-243-73	IC TC74AC138P	
IC116	8-759-916-42	IC SN74HC133N	
IC117	8-759-243-61	IC TC74AC32P	

RESISTOR

R1	1-249-441-11	CARBON	100K	5%	1/4W
R2	1-249-441-11	CARBON	100K	5%	1/4W
R3	1-249-441-11	CARBON	100K	5%	1/4W
R4	1-249-441-11	CARBON	100K	5%	1/4W
R5	1-249-441-11	CARBON	100K	5%	1/4W
R6	1-249-441-11	CARBON	100K	5%	1/4W
R7	1-249-441-11	CARBON	100K	5%	1/4W
R9	1-249-441-11	CARBON	100K	5%	1/4W
R10	1-249-441-11	CARBON	100K	5%	1/4W
R11	1-249-441-11	CARBON	100K	5%	1/4W
R12	1-249-441-11	CARBON	100K	5%	1/4W
R15	1-249-417-11	CARBON	1K	5%	1/4W
R16	1-249-417-11	CARBON	1K	5%	1/4W

RESISTOR BLOCK

RB5	1-231-385-00	RESISTOR BLOCK 4.7K
RB6	1-231-385-00	RESISTOR BLOCK 4.7K
RB7	1-231-385-00	RESISTOR BLOCK 4.7K
RB8	1-231-385-00	RESISTOR BLOCK 4.7K
RB9	1-231-385-00	RESISTOR BLOCK 4.7K
RB10	1-231-385-00	RESISTOR BLOCK 4.7K
RB11	1-231-411-00	RESISTOR BLOCK 100K
RB12	1-231-411-00	RESISTOR BLOCK 100K
RB13	1-231-411-00	RESISTOR BLOCK 100K
RB14	1-231-411-00	RESISTOR BLOCK 100K
RB15	1-231-411-00	RESISTOR BLOCK 100K
RB16	1-231-411-00	RESISTOR BLOCK 100K
RB17	1-231-411-00	RESISTOR BLOCK 100K
RB18	1-231-411-00	RESISTOR BLOCK 100K
RB19	1-231-411-00	RESISTOR BLOCK 100K
RB20	1-231-411-00	RESISTOR BLOCK 100K
RB21	1-231-411-00	RESISTOR BLOCK 100K
RB24	1-231-411-00	RESISTOR BLOCK 100K
RB25	1-231-411-00	RESISTOR BLOCK 100K
RB26	1-231-385-00	RESISTOR BLOCK 4.7K
RB27	1-239-751-11	RESISTOR BLOCK 22
RB28	1-239-751-11	RESISTOR BLOCK 22
RB29	1-235-132-00	RES BLOCK 100
RB30	1-235-132-00	RES BLOCK 100
RB31	1-235-132-00	RES BLOCK 100
RB32	1-235-132-00	RES BLOCK 100
RB33	1-235-132-00	RES BLOCK 100
RB34	1-235-132-00	RES BLOCK 100
RB35	1-239-751-11	RESISTOR BLOCK 22
RB36	1-239-751-11	RESISTOR BLOCK 22
RB37	1-239-751-11	RESISTOR BLOCK 22
RB38	1-239-751-11	RESISTOR BLOCK 22
RB39	1-239-751-11	RESISTOR BLOCK 22
RB40	1-239-751-11	RESISTOR BLOCK 22
RB41	1-239-751-11	RESISTOR BLOCK 22
RB42	1-239-751-11	RESISTOR BLOCK 22
RB43	1-239-751-11	RESISTOR BLOCK 22
RB44	1-239-751-11	RESISTOR BLOCK 22
RB45	1-239-751-11	RESISTOR BLOCK 22
RB46	1-235-132-00	RES BLOCK 100
RB47	1-235-132-00	RES BLOCK 100
RB48	1-239-751-11	RESISTOR BLOCK 22
RB49	1-235-132-00	RES BLOCK 100
RB50	1-235-132-00	RES BLOCK 100
RB51	1-235-132-00	RES BLOCK 100
RB52	1-235-132-00	RES BLOCK 100

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REF.NO.	PART NO.	DESCRIPTION			REMARK
		TEST PIN			
TP1	3-673-772-01	TERMINAL, TP			
TP2	3-673-772-01	TERMINAL, TP			
TP3	3-673-772-01	TERMINAL, TP			
TP4	3-673-772-01	TERMINAL, TP			
TP5	3-673-772-01	TERMINAL, TP			
		**********			
	*A-6258-513-A	CGI BOARD, COMPLETE			
		**********			
	1-526-656-00	SOCKET, IC (DP) 20P			
	1-562-579-21	RECEPTACLE, CONNECTOR 2P			
	*2-182-909-01	LEVER, PC BOARD			
	*4-053-788-01	SHEET, EARTH			
	7-626-320-11	PIN, SPRING 3X8			
	7-628-254-40	SCREW +PS 2.6X12			
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3			
		CAPACITOR			
C1	1-107-596-11	MICA	20PF	0.5PF	500V
C2	1-107-596-11	MICA	20PF	0.5PF	500V
C3	1-107-596-11	MICA	20PF	0.5PF	500V
C4	1-162-806-11	CERAMIC	0.1MF	10%	50V
C5	1-162-806-11	CERAMIC	0.1MF	10%	50V
C6	1-162-806-11	CERAMIC	0.1MF	10%	50V
C7	1-162-806-11	CERAMIC	0.1MF	10%	50V
C8	1-162-806-11	CERAMIC	0.1MF	10%	50V
C9	1-162-806-11	CERAMIC	0.1MF	10%	50V
C10	1-162-806-11	CERAMIC	0.1MF	10%	50V
C11	1-162-806-11	CERAMIC	0.1MF	10%	50V
C12	1-162-806-11	CERAMIC	0.1MF	10%	50V
C13	1-162-806-11	CERAMIC	0.1MF	10%	50V
C14	1-124-907-11	ELECT	10MF	20%	50V
C15	1-162-806-11	CERAMIC	0.1MF	10%	50V
C16	1-131-353-00	TANTALUM	10MF	20%	16V
C17	1-137-364-11	FILM	0.001MF	5%	50V
C18	1-137-399-11	FILM	0.1MF	5%	50V
C19	1-102-959-00	CERAMIC	22PF	5%	50V
C20	1-126-233-11	ELECT	22MF	20%	25V
C21	1-162-806-11	CERAMIC	0.1MF	10%	50V
C22	1-162-806-11	CERAMIC	0.1MF	10%	50V
C23	1-126-233-11	ELECT	22MF	20%	25V
C24	1-137-370-11	FILM	0.01MF	5%	50V
C25	1-137-370-11	FILM	0.01MF	5%	50V
C26	1-137-370-11	FILM	0.01MF	5%	50V
C27	1-137-370-11	FILM	0.01MF	5%	50V
C28	1-137-370-11	FILM	0.01MF	5%	50V
C39	1-102-973-00	CERAMIC	100PF	5%	50V
C40	1-102-973-00	CERAMIC	100PF	5%	50V
C41	1-102-973-00	CERAMIC	100PF	5%	50V
C42	1-102-973-00	CERAMIC	100PF	5%	50V
C43	1-102-973-00	CERAMIC	100PF	5%	50V
C44	1-102-973-00	CERAMIC	100PF	5%	50V
C45	1-102-973-00	CERAMIC	100PF	5%	50V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C46	1-102-973-00	CERAMIC	100PF	5%	50V
C47	1-102-973-00	CERAMIC	100PF	5%	50V
C48	1-102-973-00	CERAMIC	100PF	5%	50V
C49	1-102-978-00	CERAMIC	220PF	5%	50V
C50	1-102-978-00	CERAMIC	220PF	5%	50V
C51	1-102-978-00	CERAMIC	220PF	5%	50V
C52	1-102-978-00	CERAMIC	220PF	5%	50V
C53	1-102-978-00	CERAMIC	220PF	5%	50V
C54	1-162-806-11	CERAMIC	0.1MF	10%	50V
C55	1-162-806-11	CERAMIC	0.1MF	10%	50V
C56	1-162-806-11	CERAMIC	0.1MF	10%	50V
C57	1-162-806-11	CERAMIC	0.1MF	10%	50V
C58	1-162-806-11	CERAMIC	0.1MF	10%	50V
C59	1-126-233-11	ELECT	22MF	20%	25V
C60	1-102-935-00	CERAMIC	2PF	0.25PF	50V
C61	1-131-341-00	TANTALUM	0.1MF	20%	16V
C62	1-131-363-00	TANTALUM	4.7MF	20%	16V
C63	1-137-364-11	FILM	0.001MF	5%	50V
C64	1-109-807-00	MICA	100PF	5%	100V
C65	1-102-963-00	CERAMIC	33PF	5%	50V
C66	1-102-963-00	CERAMIC	33PF	5%	50V
C67	1-162-806-11	CERAMIC	0.1MF	10%	50V
C68	1-124-907-11	ELECT	10MF	20%	50V
C69	1-137-364-11	FILM	0.001MF	5%	50V
C70	1-107-713-11	ELECT	4.7MF	20%	35V
C71	1-102-947-00	CERAMIC	10PF	0.5PF	50V
C72	1-107-596-11	MICA	20PF	0.5PF	500V
C73	1-137-364-11	FILM	0.001MF	5%	50V
C74	1-107-596-11	MICA	20PF	0.5PF	500V
C75	1-137-364-11	FILM	0.001MF	5%	50V
C76	1-162-806-11	CERAMIC	0.1MF	10%	50V
C77	1-107-715-11	ELECT	22MF	20%	16V
C78	1-107-715-11	ELECT	22MF	20%	16V
C79	1-107-715-11	ELECT	22MF	20%	16V
C80	1-162-806-11	CERAMIC	0.1MF	10%	50V
C81	1-162-806-11	CERAMIC	0.1MF	10%	50V
C82	1-162-806-11	CERAMIC	0.1MF	10%	50V
C83	1-162-806-11	CERAMIC	0.1MF	10%	50V
C84	1-162-806-11	CERAMIC	0.1MF	10%	50V
C85	1-162-806-11	CERAMIC	0.1MF	10%	50V
C86	1-107-715-11	ELECT	22MF	20%	16V
C87	1-162-806-11	CERAMIC	0.1MF	10%	50V
C88	1-126-963-11	ELECT	4.7MF	20%	50V
C89	1-124-907-11	ELECT	10MF	20%	50V
C90	1-124-907-11	ELECT	10MF	20%	50V
C91	1-137-368-11	FILM	0.0047MF	5%	50V
C92	1-137-375-11	FILM	0.068MF	5%	50V
C93	1-124-907-11	ELECT	10MF	20%	50V
C94	1-137-370-11	FILM	0.01MF	5%	50V
C95	1-102-973-00	CERAMIC	100PF	5%	50V
C96	1-137-364-11	FILM	0.001MF	5%	50V
C97	1-102-973-00	CERAMIC	100PF	5%	50V
C98	1-126-233-11	ELECT	22MF	20%	25V
C100	1-137-364-11	FILM	0.001MF	5%	50V
C101	1-137-364-11	FILM	0.001MF	5%	50V
C102	1-107-715-11	ELECT	22MF	20%	16V

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REF.NO.	PART NO.	DESCRIPTION			REMARK
C103	1-102-935-00	CERAMIC	2PF	0.25PF	50V
C104	1-102-963-00	CERAMIC	33PF	5%	50V
C105	1-162-806-11	CERAMIC	0.1MF	10%	50V
C106	1-162-806-11	CERAMIC	0.1MF	10%	50V
C107	1-162-806-11	CERAMIC	0.1MF	10%	50V
C108	1-102-973-00	CERAMIC	100PF	5%	50V
C109	1-162-806-11	CERAMIC	0.1MF	10%	50V
C110	1-162-806-11	CERAMIC	0.1MF	10%	50V
C111	1-137-372-11	FILM	0.022MF	5%	50V
C112	1-137-364-11	FILM	0.001MF	5%	50V
C113	1-162-806-11	CERAMIC	0.1MF	10%	50V
C114	1-126-233-11	ELECT	22MF	20%	25V
C115	1-162-806-11	CERAMIC	0.1MF	10%	50V
C116	1-137-522-11	FILM	0.01MF	5%	50V
C117	1-126-233-11	ELECT	22MF	20%	25V
C118	1-137-522-11	FILM	0.01MF	5%	50V
C119	1-137-522-11	FILM	0.01MF	5%	50V
C120	1-107-715-11	ELECT	22MF	20%	16V
C121	1-102-935-00	CERAMIC	2PF	0.25PF	50V
C122	1-102-963-00	CERAMIC	33PF	5%	50V
C123	1-162-806-11	CERAMIC	0.1MF	10%	50V
C124	1-162-806-11	CERAMIC	0.1MF	10%	50V
C125	1-162-806-11	CERAMIC	0.1MF	10%	50V
C126	1-102-973-00	CERAMIC	100PF	5%	50V
C127	1-162-806-11	CERAMIC	0.1MF	10%	50V
C128	1-162-806-11	CERAMIC	0.1MF	10%	50V
C129	1-137-372-11	FILM	0.022MF	5%	50V
C130	1-137-364-11	FILM	0.001MF	5%	50V
C131	1-162-806-11	CERAMIC	0.1MF	10%	50V
C132	1-126-233-11	ELECT	22MF	20%	25V
C133	1-162-806-11	CERAMIC	0.1MF	10%	50V
C134	1-137-522-11	FILM	0.01MF	5%	50V
C135	1-126-233-11	ELECT	22MF	20%	25V
C136	1-137-522-11	FILM	0.01MF	5%	50V
C137	1-137-522-11	FILM	0.01MF	5%	50V
C138	1-107-715-11	ELECT	22MF	20%	16V
C139	1-102-935-00	CERAMIC	2PF	0.25PF	50V
C140	1-102-963-00	CERAMIC	33PF	5%	50V
C141	1-162-806-11	CERAMIC	0.1MF	10%	50V
C142	1-162-806-11	CERAMIC	0.1MF	10%	50V
C143	1-162-806-11	CERAMIC	0.1MF	10%	50V
C144	1-102-973-00	CERAMIC	100PF	5%	50V
C145	1-162-806-11	CERAMIC	0.1MF	10%	50V
C146	1-162-806-11	CERAMIC	0.1MF	10%	50V
C147	1-137-372-11	FILM	0.022MF	5%	50V
C148	1-137-364-11	FILM	0.001MF	5%	50V
C149	1-162-806-11	CERAMIC	0.1MF	10%	50V
C150	1-126-233-11	ELECT	22MF	20%	25V
C151	1-162-806-11	CERAMIC	0.1MF	10%	50V
C152	1-137-522-11	FILM	0.01MF	5%	50V
C153	1-126-233-11	ELECT	22MF	20%	25V
C154	1-137-522-11	FILM	0.01MF	5%	50V
C155	1-137-522-11	FILM	0.01MF	5%	50V
C156	1-162-806-11	CERAMIC	0.1MF	10%	50V
C157	1-162-806-11	CERAMIC	0.1MF	10%	50V
C158	1-162-806-11	CERAMIC	0.1MF	10%	50V
C159	1-162-806-11	CERAMIC	0.1MF	10%	50V
C160	1-162-806-11	CERAMIC	0.1MF	10%	50V
C161	1-162-806-11	CERAMIC	0.1MF	10%	50V
C162	1-102-935-00	CERAMIC	2PF	0.25PF	50V
C163	1-162-806-11	CERAMIC	0.1MF	10%	50V
C164	1-102-963-00	CERAMIC	33PF	10%	50V
C165	1-162-806-11	CERAMIC	0.1MF	10%	50V
C166	1-162-806-11	CERAMIC	0.1MF	10%	50V
C167	1-162-806-11	CERAMIC	0.1MF	10%	50V
C168	1-102-942-00	CERAMIC	5PF	0.5PF	50V
C169	1-124-907-11	ELECT	10MF	20%	50V
C170	1-126-941-11	ELECT	470MF	20%	16V
C171	1-107-701-11	ELECT	47MF	20%	16V
C172	1-124-120-11	ELECT	220MF	20%	16V
C173	1-126-941-11	ELECT	470MF	20%	16V
C174	1-126-941-11	ELECT	470MF	20%	16V
C175	1-162-806-11	CERAMIC	0.1MF	10%	50V
C176	1-162-806-11	CERAMIC	0.1MF	10%	50V
C177	1-162-806-11	CERAMIC	0.1MF	10%	50V
C178	1-162-806-11	CERAMIC	0.1MF	10%	50V
C179	1-162-806-11	CERAMIC	0.1MF	10%	50V
C180	1-162-806-11	CERAMIC	0.1MF	10%	50V
C181	1-162-806-11	CERAMIC	0.1MF	10%	50V
C182	1-162-806-11	CERAMIC	0.1MF	10%	50V
C183	1-162-806-11	CERAMIC	0.1MF	10%	50V
C184	1-162-806-11	CERAMIC	0.1MF	10%	50V
C185	1-162-806-11	CERAMIC	0.1MF	10%	50V
C186	1-162-806-11	CERAMIC	0.1MF	10%	50V
C187	1-162-806-11	CERAMIC	0.1MF	10%	50V
C188	1-162-806-11	CERAMIC	0.1MF	10%	50V
C189	1-162-806-11	CERAMIC	0.1MF	10%	50V
C190	1-162-806-11	CERAMIC	0.1MF	10%	50V
C191	1-162-806-11	CERAMIC	0.1MF	10%	50V
C192	1-162-806-11	CERAMIC	0.1MF	10%	50V
C193	1-162-806-11	CERAMIC	0.1MF	10%	50V
C194	1-162-806-11	CERAMIC	0.1MF	10%	50V
C195	1-162-806-11	CERAMIC	0.1MF	10%	50V
C196	1-162-806-11	CERAMIC	0.1MF	10%	50V
C197	1-162-806-11	CERAMIC	0.1MF	10%	50V
C198	1-162-806-11	CERAMIC	0.1MF	10%	50V
C199	1-162-806-11	CERAMIC	0.1MF	10%	50V
C200	1-162-806-11	CERAMIC	0.1MF	10%	50V
C201	1-162-806-11	CERAMIC	0.1MF	10%	50V
C202	1-162-806-11	CERAMIC	0.1MF	10%	50V
C203	1-162-806-11	CERAMIC	0.1MF	10%	50V
C204	1-162-806-11	CERAMIC	0.1MF	10%	50V
C205	1-162-806-11	CERAMIC	0.1MF	10%	50V
C206	1-162-806-11	CERAMIC	0.1MF	10%	50V
C207	1-162-806-11	CERAMIC	0.1MF	10%	50V
C208	1-162-806-11	CERAMIC	0.1MF	10%	50V
C209	1-162-806-11	CERAMIC	0.1MF	10%	50V
C210	1-162-806-11	CERAMIC	0.1MF	10%	50V
C211	1-162-806-11	CERAMIC	0.1MF	10%	50V
C212	1-162-806-11	CERAMIC	0.1MF	10%	50V
C213	1-162-806-11	CERAMIC	0.1MF	10%	50V
C214	1-162-806-11	CERAMIC	0.1MF	10%	50V

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REF.NO.	PART NO.	DESCRIPTION			REMARK
C215	1-162-806-11	CERAMIC	0.1MF	10%	50V
C216	1-162-806-11	CERAMIC	0.1MF	10%	50V
C217	1-162-806-11	CERAMIC	0.1MF	10%	50V
C218	1-162-806-11	CERAMIC	0.1MF	10%	50V
C219	1-162-806-11	CERAMIC	0.1MF	10%	50V
C220	1-162-806-11	CERAMIC	0.1MF	10%	50V
C221	1-162-806-11	CERAMIC	0.1MF	10%	50V
C222	1-162-806-11	CERAMIC	0.1MF	10%	50V
C223	1-162-806-11	CERAMIC	0.1MF	10%	50V
C224	1-162-806-11	CERAMIC	0.1MF	10%	50V
C225	1-162-806-11	CERAMIC	0.1MF	10%	50V
C226	1-162-806-11	CERAMIC	0.1MF	10%	50V
C227	1-162-806-11	CERAMIC	0.1MF	10%	50V
C228	1-162-806-11	CERAMIC	0.1MF	10%	50V
C229	1-162-806-11	CERAMIC	0.1MF	10%	50V
C230	1-162-806-11	CERAMIC	0.1MF	10%	50V
C231	1-162-806-11	CERAMIC	0.1MF	10%	50V
C232	1-162-806-11	CERAMIC	0.1MF	10%	50V
C233	1-162-806-11	CERAMIC	0.1MF	10%	50V
C234	1-162-806-11	CERAMIC	0.1MF	10%	50V
C235	1-162-806-11	CERAMIC	0.1MF	10%	50V
C236	1-162-806-11	CERAMIC	0.1MF	10%	50V
C237	1-162-806-11	CERAMIC	0.1MF	10%	50V
C238	1-162-806-11	CERAMIC	0.1MF	10%	50V
C239	1-162-806-11	CERAMIC	0.1MF	10%	50V
C240	1-162-806-11	CERAMIC	0.1MF	10%	50V
C241	1-162-806-11	CERAMIC	0.1MF	10%	50V
C242	1-162-806-11	CERAMIC	0.1MF	10%	50V
C243	1-162-806-11	CERAMIC	0.1MF	10%	50V
C244	1-162-806-11	CERAMIC	0.1MF	10%	50V
C245	1-162-806-11	CERAMIC	0.1MF	10%	50V
C246	1-162-806-11	CERAMIC	0.1MF	10%	50V
C247	1-162-806-11	CERAMIC	0.1MF	10%	50V
C248	1-162-806-11	CERAMIC	0.1MF	10%	50V
C249	1-162-806-11	CERAMIC	0.1MF	10%	50V
C250	1-162-806-11	CERAMIC	0.1MF	10%	50V
C251	1-162-806-11	CERAMIC	0.1MF	10%	50V
C252	1-162-806-11	CERAMIC	0.1MF	10%	50V
C253	1-162-806-11	CERAMIC	0.1MF	10%	50V
C254	1-162-806-11	CERAMIC	0.1MF	10%	50V
C255	1-162-806-11	CERAMIC	0.1MF	10%	50V
C256	1-162-806-11	CERAMIC	0.1MF	10%	50V
C257	1-162-806-11	CERAMIC	0.1MF	10%	50V
C258	1-162-806-11	CERAMIC	0.1MF	10%	50V
C259	1-162-806-11	CERAMIC	0.1MF	10%	50V
C260	1-162-806-11	CERAMIC	0.1MF	10%	50V
C261	1-162-806-11	CERAMIC	0.1MF	10%	50V
C262	1-162-806-11	CERAMIC	0.1MF	10%	50V
C263	1-162-806-11	CERAMIC	0.1MF	10%	50V
C264	1-162-806-11	CERAMIC	0.1MF	10%	50V
C265	1-162-806-11	CERAMIC	0.1MF	10%	50V
C266	1-162-806-11	CERAMIC	0.1MF	10%	50V
C267	1-162-806-11	CERAMIC	0.1MF	10%	50V
C268	1-162-806-11	CERAMIC	0.1MF	10%	50V
C269	1-162-806-11	CERAMIC	0.1MF	10%	50V
C270	1-162-806-11	CERAMIC	0.1MF	10%	50V
C271	1-102-963-00	CERAMIC	33PF	5%	50V
C272	1-102-963-00	CERAMIC	33PF	5%	50V
C273	1-162-806-11	CERAMIC	0.1MF	10%	50V

CONNECTOR

CN1	1-506-748-31	PIN, DIN CONNECTOR (DIP) 96P
CN2	1-506-748-31	PIN, DIN CONNECTOR (DIP) 96P
COR1	1-564-952-21	PIN, CONNECTOR 4P
COR2	1-691-506-21	PIN, CONNECTOR 10P
COR3	1-564-952-21	PIN, CONNECTOR 4P
COR4	1-691-506-21	PIN, CONNECTOR 10P

DIODE

D1	8-719-109-66	DIODE RD3.3ESB2
D2	8-719-820-58	DIODE 1SS177
D3	8-719-820-58	DIODE 1SS177
D4	8-719-988-66	DIODE 1S2267
D5	8-719-988-66	DIODE 1S2267
D6	8-719-988-66	DIODE 1S2267
D7	8-719-988-66	DIODE 1S2267
D8	8-719-988-66	DIODE 1S2267

FERRITE BEAD

FB1	1-235-451-11	FILTER, NOISE

FILTER

FL4	1-236-129-11	ENCAPSULATED COMPONENT
FL5	1-236-129-11	ENCAPSULATED COMPONENT

IC

IC1	8-759-350-30	IC MB814400A-70PSZ-G
IC2	8-759-350-30	IC MB814400A-70PSZ-G
IC3	8-759-350-30	IC MB814400A-70PSZ-G
IC4	8-759-350-30	IC MB814400A-70PSZ-G
IC5	8-759-350-30	IC MB814400A-70PSZ-G
IC6	8-759-350-30	IC MB814400A-70PSZ-G
IC7	8-759-350-30	IC MB814400A-70PSZ-G
IC8	8-759-350-30	IC MB814400A-70PSZ-G
IC9	8-759-350-30	IC MB814400A-70PSZ-G
IC10	8-759-350-30	IC MB814400A-70PSZ-G
IC11	8-759-350-30	IC MB814400A-70PSZ-G
IC12	8-759-350-30	IC MB814400A-70PSZ-G
IC13	8-759-350-30	IC MB814400A-70PSZ-G
IC14	8-759-350-30	IC MB814400A-70PSZ-G
IC15	8-759-350-30	IC MB814400A-70PSZ-G
IC16	8-759-350-30	IC MB814400A-70PSZ-G
IC17	8-759-350-30	IC MB814400A-70PSZ-G
IC18	8-759-350-30	IC MB814400A-70PSZ-G
IC19	8-759-350-30	IC MB814400A-70PSZ-G
IC20	8-759-350-30	IC MB814400A-70PSZ-G

CGI

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC21	8-759-350-30	IC MB814400A-70PSZ-G	
IC22	8-759-350-30	IC MB814400A-70PSZ-G	
IC23	8-759-350-30	IC MB814400A-70PSZ-G	
IC24	8-759-350-30	IC MB814400A-70PSZ-G	
IC25	8-759-350-30	IC MB814400A-70PSZ-G	
IC26	8-759-350-30	IC MB814400A-70PSZ-G	
IC27	8-759-350-30	IC MB814400A-70PSZ-G	
IC28	8-759-350-30	IC MB814400A-70PSZ-G	
IC29	8-759-350-30	IC MB814400A-70PSZ-G	
IC30	8-759-350-30	IC MB814400A-70PSZ-G	
IC31	8-759-350-30	IC MB814400A-70PSZ-G	
IC32	8-759-350-30	IC MB814400A-70PSZ-G	
IC33	8-759-350-30	IC MB814400A-70PSZ-G	
IC34	8-759-350-30	IC MB814400A-70PSZ-G	
IC35	8-759-350-30	IC MB814400A-70PSZ-G	
IC36	8-759-350-30	IC MB814400A-70PSZ-G	
IC37	8-759-515-08	IC SN74ALS374AN	
IC38	8-759-515-08	IC SN74ALS374AN	
IC39	8-759-515-08	IC SN74ALS374AN	
IC40	8-759-515-08	IC SN74ALS374AN	
IC41	8-759-515-08	IC SN74ALS374AN	
IC42	8-759-515-08	IC SN74ALS374AN	
IC43	8-759-515-08	IC SN74ALS374AN	
IC44	8-759-515-08	IC SN74ALS374AN	
IC45	8-759-515-08	IC SN74ALS374AN	
IC46	8-759-515-08	IC SN74ALS374AN	
IC47	8-759-515-08	IC SN74ALS374AN	
IC48	8-759-515-08	IC SN74ALS374AN	
IC49	8-759-515-08	IC SN74ALS374AN	
IC50	8-759-515-08	IC SN74ALS374AN	
IC51	8-759-515-08	IC SN74ALS374AN	
IC52	8-759-515-08	IC SN74ALS374AN	
IC53	8-759-515-08	IC SN74ALS374AN	
IC54	8-759-515-08	IC SN74ALS374AN	
IC55	8-759-515-08	IC SN74ALS374AN	
IC56	8-759-515-08	IC SN74ALS374AN	
IC57	8-759-515-08	IC SN74ALS374AN	
IC58	8-759-515-08	IC SN74ALS374AN	
IC59	8-759-515-08	IC SN74ALS374AN	
IC60	8-759-515-08	IC SN74ALS374AN	
IC61	8-759-515-08	IC SN74ALS374AN	
IC62	8-759-515-08	IC SN74ALS374AN	
IC63	8-759-515-08	IC SN74ALS374AN	
IC64	8-759-515-08	IC SN74ALS374AN	
IC65	8-759-515-08	IC SN74ALS374AN	
IC66	8-759-515-08	IC SN74ALS374AN	
IC67	8-759-515-08	IC SN74ALS374AN	
IC68	8-759-515-08	IC SN74ALS374AN	
IC69	8-759-515-08	IC SN74ALS374AN	
IC70	8-759-515-08	IC SN74ALS374AN	
IC71	8-759-515-08	IC SN74ALS374AN	
IC72	8-759-515-08	IC SN74ALS374AN	
IC73	8-759-912-14	IC SN74ALS241AN	
IC74	8-759-912-14	IC SN74ALS241AN	
IC75	8-759-912-14	IC SN74ALS241AN	
IC76	8-759-912-14	IC SN74ALS241AN	
IC77	8-759-912-14	IC SN74ALS241AN	
IC78	8-759-912-14	IC SN74ALS241AN	
IC79	8-759-912-14	IC SN74ALS241AN	
IC80	8-759-912-14	IC SN74ALS241AN	
IC81	8-759-912-14	IC SN74ALS241AN	
IC82	8-759-912-14	IC SN74ALS241AN	
IC83	8-759-912-14	IC SN74ALS241AN	
IC84	8-759-912-14	IC SN74ALS241AN	
IC85	8-759-912-14	IC SN74ALS241AN	
IC86	8-759-912-14	IC SN74ALS241AN	
IC87	8-759-912-14	IC SN74ALS241AN	
IC88	8-759-912-14	IC SN74ALS241AN	
IC89	8-759-912-14	IC SN74ALS241AN	
IC90	8-759-912-14	IC SN74ALS241AN	
IC91	8-759-902-94	IC SN74LS590N	
IC92	8-759-902-94	IC SN74LS590N	
IC93	8-759-902-94	IC SN74LS590N	
IC94	8-759-902-94	IC SN74LS590N	
IC95	8-759-902-94	IC SN74LS590N	
IC96	8-759-902-94	IC SN74LS590N	
IC97	8-759-902-94	IC SN74LS590N	
IC98	8-759-902-94	IC SN74LS590N	
IC99	8-759-902-94	IC SN74LS590N	
IC100	8-759-902-94	IC SN74LS590N	
IC101	8-759-902-94	IC SN74LS590N	
IC102	8-759-902-94	IC SN74LS590N	
IC103	8-759-916-40	IC SN74HC125AN	
IC104	8-759-916-40	IC SN74HC125AN	
IC105	8-759-904-80	IC 74F04PC	
IC106	8-759-261-96	IC HM63021P28N	
IC107	8-759-261-96	IC HM63021P28N	
IC108	8-759-261-96	IC HM63021P28N	
IC109	8-759-261-96	IC HM63021P28N	
IC110	8-759-261-96	IC HM63021P28N	
IC111	8-759-261-96	IC HM63021P28N	
IC112	8-759-971-67	IC LM360N	
IC113	8-759-971-67	IC LM360N	
IC114	8-759-971-67	IC LM360N	
IC115	8-759-904-82	IC 74F10PC	
IC116	8-759-904-84	IC 74F74PC	
IC117	8-759-503-91	IC TL082ACP	
IC118	8-759-040-44	IC MC4044P	
IC119	8-759-904-18	IC SN74ALS00AN	
IC120	8-759-900-69	IC SN74ALS74AN	
IC121	8-759-038-14	IC MC74HC4538AN	
IC122	8-759-915-41	IC 74F02PC	
IC123	8-759-904-79	IC 74F00PC	
IC124	8-759-008-70	IC LM358N	
IC125	8-759-921-81	SN74HC4066N	
IC126	8-759-902-21	IC SN74LS221N	
IC127	8-752-306-51	IC CX23065A	
IC128	8-759-946-64	IC SN74ALS04BN	
IC129	8-759-938-92	IC 74F151APC	
IC130	8-759-347-37	IC SN74ALS138AN	
IC131	8-759-946-36	IC SN74ALS163BN	
IC132	8-759-946-36	IC SN74ALS163BN	

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REF.NO.	PART NO.	DESCRIPTION	REMARK
IC133	8-759-946-36	IC SN74ALS163BN	
IC134	8-759-171-29	IC PALCE16V8Q-25PC-CSDA	
IC135	8-759-171-30	IC PALCE16V8Q-25PC-CSDB	
IC136	8-759-904-80	IC 74F04PC	
IC137	8-759-515-08	IC SN74ALS374AN	
IC138	8-759-936-54	IC SN74ALS175N	
IC139	8-759-171-36	IC PALCE16V8Q-25PC-ADR	
IC140	8-759-902-97	IC SN74LS592N	
IC141	8-759-902-97	IC SN74LS592N	
IC142	8-759-936-54	IC SN74ALS175N	
IC143	8-759-171-31	IC PALCE16V8Q-25PC-VHS	
IC144	8-759-171-32	IC PALCE16V8Q-25PC-VVS	
IC145	8-759-900-69	IC SN74ALS74AN	
IC146	8-759-171-33	IC PALCE16V8Q-25PC-FCA	
IC147	8-759-171-35	IC PALCE16V8Q-25PC-FCB	
IC148	8-759-171-34	IC PALCE16V8Q-25PC-MWC1	
IC149	8-759-171-28	IC PALCE16V8Q-25PC-MWC2	
IC150	8-759-171-41	IC PALCE16V8Q-25PC-MRC1	
IC151	8-759-171-38	IC PALCE16V8Q-25PC-MRC2	
IC152	8-759-171-39	IC PALCE16V8Q-25PC-SNA	
IC153	8-759-171-43	IC PALCE16V8Q-25PC-SNB	
IC154	8-759-171-42	IC PALCE16V8Q-25PC-SNC	
IC155	8-759-171-37	IC PALCE16V8Q-25PC-SND	
IC156	8-759-997-10	IC SN74ALS139N	
IC157	8-759-997-10	IC SN74ALS139N	
IC158	8-759-997-10	IC SN74ALS139N	
IC159	8-759-904-80	IC 74F04PC	
IC160	8-759-946-64	IC SN74ALS04BN	
IC161	8-759-637-31	IC M52036SP	
IC162	8-759-171-40	IC PALCE16V8Q-25PC-SG	
IC163	8-759-902-21	IC SN74LS221N	
IC164	8-759-301-24	IC HD10124	
IC165	8-719-983-10	DIODE MTZJ-T-77-3.3B	
IC166	8-759-920-09	IC LM3080N	
IC167	8-759-503-91	IC TL082ACP	
IC168	8-719-983-10	DIODE MTZJ-T-77-3.3B	
IC169	8-759-920-09	IC LM3080N	
IC170	8-759-503-91	IC TL082ACP	
IC171	8-719-983-10	DIODE MTZJ-T-77-3.3B	
IC172	8-759-920-09	IC LM3080N	
IC173	8-759-503-91	IC TL082ACP	
IC174	8-752-052-98	IC CXA1386P	
IC175	8-752-052-98	IC CXA1386P	
IC176	8-752-052-98	IC CXA1386P	
IC177	8-759-001-25	IC MC10125L	
IC178	8-759-001-25	IC MC10125L	
IC179	8-759-001-25	IC MC10125L	
IC180	8-759-001-25	IC MC10125L	
IC181	8-759-001-25	IC MC10125L	
IC182	8-759-001-25	IC MC10125L	
IC183	8-759-515-08	IC SN74ALS374AN	
IC184	8-759-515-08	IC SN74ALS374AN	
IC185	8-759-515-08	IC SN74ALS374AN	
IC186	8-759-946-64	IC SN74ALS04BN	
IC187	8-759-971-67	IC LM360N	
IC188	8-759-989-55	IC SN74ALS244BN	

REF.NO.	PART NO.	DESCRIPTION	REMARK
		COIL	
L1	1-408-413-00	INDUCTOR 22UH	
L2	1-408-413-00	INDUCTOR 22UH	
L3	1-408-413-00	INDUCTOR 22UH	
L4	1-408-413-00	INDUCTOR 22UH	
L5	1-408-425-00	INDUCTOR 220UH	
L6	1-408-425-00	INDUCTOR 220UH	
L7	1-408-425-00	INDUCTOR 220UH	
L8	1-408-397-00	INDUCTOR 1UH	
L9	1-408-397-00	INDUCTOR 1UH	
L10	1-408-399-00	INDUCTOR 1.5UH	
L11	1-408-403-00	INDUCTOR 3.3UH	
L12	1-408-405-00	INDUCTOR 4.7UH	
L13	1-408-406-00	INDUCTOR 5.6UH	
		TRANSISTOR	
Q1	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q2	8-729-110-52	TRANSISTOR 2SA1005-L	
Q3	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q4	8-729-110-52	TRANSISTOR 2SA1005-L	
Q5	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q6	8-729-105-74	TRANSISTOR 2SK523-M1	
Q7	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q8	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q9	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q10	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q11	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q12	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q13	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q14	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q15	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q16	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q17	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q18	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q19	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q20	8-729-110-52	TRANSISTOR 2SA1005-L	
Q21	8-729-110-52	TRANSISTOR 2SA1005-L	
Q22	8-729-105-74	TRANSISTOR 2SK523-M1	
Q23	8-729-105-74	TRANSISTOR 2SK523-M1	
Q24	8-729-105-74	TRANSISTOR 2SK523-M1	
Q25	8-729-105-74	TRANSISTOR 2SK523-M1	
Q26	8-729-105-74	TRANSISTOR 2SK523-M1	
Q27	8-729-105-74	TRANSISTOR 2SK523-M1	
Q28	8-729-110-52	TRANSISTOR 2SA1005-L	
Q29	8-729-110-52	TRANSISTOR 2SA1005-L	
Q30	8-729-110-52	TRANSISTOR 2SA1005-L	
Q31	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q32	8-729-119-78	TRANSISTOR 2SC2785-HFE	
		RESISTOR	
R1	1-215-381-00	METAL 22 1% 1/4W	
R2	1-215-419-00	METAL 820 1% 1/4W	
R3	1-215-381-00	METAL 22 1% 1/4W	
R4	1-215-419-00	METAL 820 1% 1/4W	

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REF.NO.	PART NO.	DESCRIPTION		REMARK
R5	1-215-381-00	METAL 22	1%	1/4W
R6	1-215-419-00	METAL 820	1%	1/4W
R7	1-215-429-00	METAL 2.2K	1%	1/4W
R8	1-215-429-00	METAL 2.2K	1%	1/4W
R9	1-215-429-00	METAL 2.2K	1%	1/4W
R10	1-215-397-00	METAL 100	1%	1/4W
R11	1-215-421-00	METAL 1K	1%	1/4W
R12	1-215-421-00	METAL 1K	1%	1/4W
R13	1-215-425-00	METAL 1.5K	1%	1/4W
R14	1-215-393-00	METAL 68	1%	1/4W
R15	1-215-425-00	METAL 1.5K	1%	1/4W
R16	1-215-427-00	METAL 1.8K	1%	1/4W
R17	1-215-463-00	METAL 56K	1%	1/4W
R18	1-215-429-00	METAL 2.2K	1%	1/4W
R19	1-215-421-00	METAL 1K	1%	1/4W
R20	1-215-463-00	METAL 56K	1%	1/4W
R21	1-215-409-00	METAL 330	1%	1/4W
R22	1-215-421-00	METAL 1K	1%	1/4W
R23	1-215-421-00	METAL 1K	1%	1/4W
R24	1-215-421-00	METAL 1K	1%	1/4W
R25	1-215-433-00	METAL 3.3K	1%	1/4W
R26	1-215-421-00	METAL 1K	1%	1/4W
R27	1-215-421-00	METAL 1K	1%	1/4W
R28	1-215-421-00	METAL 1K	1%	1/4W
R29	1-215-421-00	METAL 1K	1%	1/4W
R30	1-215-421-00	METAL 1K	1%	1/4W
R31	1-215-453-00	METAL 22K	1%	1/4W
R32	1-215-453-00	METAL 22K	1%	1/4W
R33	1-215-453-00	METAL 22K	1%	1/4W
R34	1-215-453-00	METAL 22K	1%	1/4W
R35	1-215-453-00	METAL 22K	1%	1/4W
R36	1-215-453-00	METAL 22K	1%	1/4W
R37	1-215-453-00	METAL 22K	1%	1/4W
R38	1-215-453-00	METAL 22K	1%	1/4W
R39	1-215-453-00	METAL 22K	1%	1/4W
R40	1-215-453-00	METAL 22K	1%	1/4W
R41	1-215-453-00	METAL 22K	1%	1/4W
R42	1-215-453-00	METAL 22K	1%	1/4W
R43	1-215-453-00	METAL 22K	1%	1/4W
R44	1-215-453-00	METAL 22K	1%	1/4W
R45	1-215-453-00	METAL 22K	1%	1/4W
R46	1-215-429-00	METAL 2.2K	1%	1/4W
R47	1-215-429-00	METAL 2.2K	1%	1/4W
R48	1-215-429-00	METAL 2.2K	1%	1/4W
R49	1-215-429-00	METAL 2.2K	1%	1/4W
R50	1-215-429-00	METAL 2.2K	1%	1/4W
R51	1-215-403-00	METAL 180	1%	1/4W
R52	1-215-403-00	METAL 180	1%	1/4W
R53	1-215-403-00	METAL 180	1%	1/4W
R54	1-215-403-00	METAL 180	1%	1/4W
R55	1-215-403-00	METAL 180	1%	1/4W
R56	1-215-443-00	METAL 8.2K	1%	1/4W
R57	1-215-443-00	METAL 8.2K	1%	1/4W
R58	1-215-437-00	METAL 4.7K	1%	1/4W
R59	1-215-437-00	METAL 4.7K	1%	1/4W
R60	1-215-437-00	METAL 4.7K	1%	1/4W

REF.NO.	PART NO.	DESCRIPTION		REMARK
R61	1-215-485-00	METAL 470K	1%	1/4W
R62	1-215-485-00	METAL 470K	1%	1/4W
R63	1-215-485-00	METAL 470K	1%	1/4W
R64	1-215-485-00	METAL 470K	1%	1/4W
R65	1-215-485-00	METAL 470K	1%	1/4W
R66	1-215-375-00	METAL 12	1%	1/4W
R67	1-215-445-00	METAL 10K	1%	1/4W
R68	1-215-445-00	METAL 10K	1%	1/4W
R69	1-215-429-00	METAL 2.2K	1%	1/4W
R70	1-215-445-00	METAL 10K	1%	1/4W
R71	1-215-429-00	METAL 2.2K	1%	1/4W
R72	1-215-477-00	METAL 220K	1%	1/4W
R73	1-215-437-00	METAL 4.7K	1%	1/4W
R74	1-215-421-00	METAL 1K	1%	1/4W
R75	1-215-417-00	METAL 680	1%	1/4W
R76	1-215-399-00	METAL 120	1%	1/4W
R77	1-215-409-00	METAL 330	1%	1/4W
R78	1-215-421-00	METAL 1K	1%	1/4W
R79	1-215-409-00	METAL 330	1%	1/4W
R80	1-215-437-00	METAL 4.7K	1%	1/4W
R81	1-215-429-00	METAL 2.2K	1%	1/4W
R82	1-215-429-00	METAL 2.2K	1%	1/4W
R83	1-215-421-00	METAL 1K	1%	1/4W
R84	1-215-463-00	METAL 56K	1%	1/4W
R85	1-215-429-00	METAL 2.2K	1%	1/4W
R86	1-215-429-00	METAL 2.2K	1%	1/4W
R87	1-215-453-00	METAL 22K	1%	1/4W
R88	1-215-429-00	METAL 2.2K	1%	1/4W
R89	1-215-417-00	METAL 680	1%	1/4W
R90	1-215-381-00	METAL 22	1%	1/4W
R91	1-215-381-00	METAL 22	1%	1/4W
R92	1-215-421-00	METAL 1K	1%	1/4W
R93	1-215-381-00	METAL 22	1%	1/4W
R94	1-215-381-00	METAL 22	1%	1/4W
R95	1-215-421-00	METAL 1K	1%	1/4W
R96	1-215-421-00	METAL 1K	1%	1/4W
R97	1-215-451-00	METAL 18K	1%	1/4W
R98	1-215-437-00	METAL 4.7K	1%	1/4W
R99	1-215-457-00	METAL 33K	1%	1/4W
R100	1-215-447-00	METAL 12K	1%	1/4W
R101	1-215-451-00	METAL 18K	1%	1/4W
R102	1-215-437-00	METAL 4.7K	1%	1/4W
R103	1-215-457-00	METAL 33K	1%	1/4W
R104	1-215-447-00	METAL 12K	1%	1/4W
R105	1-215-375-00	METAL 12	1%	1/4W
R106	1-215-375-00	METAL 12	1%	1/4W
R107	1-215-445-00	METAL 10K	1%	1/4W
R108	1-215-445-00	METAL 10K	1%	1/4W
R109	1-215-375-00	METAL 12	1%	1/4W
R110	1-215-375-00	METAL 12	1%	1/4W
R111	1-215-375-00	METAL 12	1%	1/4W
R112	1-215-375-00	METAL 12	1%	1/4W
R113	1-215-375-00	METAL 12	1%	1/4W
R114	1-215-421-00	METAL 1K	1%	1/4W
R115	1-215-421-00	METAL 1K	1%	1/4W
R116	1-215-421-00	METAL 1K	1%	1/4W

CGI

REF.NO.	PART NO.	DESCRIPTION		REMARK
R117	1-215-421-00	METAL 1K	1%	1/4W
R118	1-215-375-00	METAL 12	1%	1/4W
R119	1-215-375-00	METAL 12	1%	1/4W
R120	1-215-375-00	METAL 12	1%	1/4W
R121	1-215-453-00	METAL 22K	1%	1/4W
R122	1-215-453-00	METAL 22K	1%	1/4W
R123	1-215-453-00	METAL 22K	1%	1/4W
R124	1-215-385-00	METAL 33	1%	1/4W
R125	1-215-385-00	METAL 33	1%	1/4W
R126	1-215-385-00	METAL 33	1%	1/4W
R127	1-215-375-00	METAL 12	1%	1/4W
R128	1-215-445-00	METAL 10K	1%	1/4W
R129	1-215-445-00	METAL 10K	1%	1/4W
R130	1-215-375-00	METAL 12	1%	1/4W
R131	1-215-394-00	METAL 75	1%	1/4W
R132	1-215-394-00	METAL 75	1%	1/4W
R133	1-215-445-00	METAL 10K	1%	1/4W
R134	1-215-375-00	METAL 12	1%	1/4W
R135	1-215-421-00	METAL 1K	1%	1/4W
R136	1-215-375-00	METAL 12	1%	1/4W
R137	1-215-421-00	METAL 1K	1%	1/4W
R138	1-215-469-00	METAL 100K	1%	1/4W
R139	1-215-457-00	METAL 33K	1%	1/4W
R140	1-215-451-00	METAL 18K	1%	1/4W
R141	1-215-429-00	METAL 2.2K	1%	1/4W
R142	1-215-457-00	METAL 33K	1%	1/4W
R143	1-215-463-00	METAL 56K	1%	1/4W
R144	1-215-421-00	METAL 1K	1%	1/4W
R145	1-215-421-00	METAL 1K	1%	1/4W
R146	1-215-421-00	METAL 1K	1%	1/4W
R147	1-215-413-00	METAL 470	1%	1/4W
R148	1-215-445-00	METAL 10K	1%	1/4W
R149	1-215-465-00	METAL 68K	1%	1/4W
R150	1-215-461-00	METAL 47K	1%	1/4W
R151	1-215-453-00	METAL 22K	1%	1/4W
R152	1-215-437-00	METAL 4.7K	1%	1/4W
R153	1-215-373-31	METAL 10	1%	1/4W
R154	1-215-391-00	METAL 56	1%	1/4W
R155	1-215-405-00	METAL 220	1%	1/4W
R156	1-215-409-00	METAL 330	1%	1/4W
R157	1-249-385-11	CARBON 2.2	5%	1/4W
R158	1-215-445-00	METAL 10K	1%	1/4W
R159	1-215-429-00	METAL 2.2K	1%	1/4W
R160	1-215-467-00	METAL 82K	1%	1/4W
R161	1-215-441-00	METAL 6.8K	1%	1/4W
R162	1-215-429-00	METAL 2.2K	1%	1/4W
R163	1-249-385-11	CARBON 2.2	5%	1/4W
R164	1-249-385-11	CARBON 2.2	5%	1/4W
R165	1-215-381-00	METAL 22	1%	1/4W
R166	1-215-405-00	METAL 220	1%	1/4W
R167	1-215-421-00	METAL 1K	1%	1/4W
R168	1-215-421-00	METAL 1K	1%	1/4W
R169	1-215-453-00	METAL 22K	1%	1/4W
R170	1-215-437-00	METAL 4.7K	1%	1/4W
R171	1-215-373-31	METAL 10	1%	1/4W
R172	1-215-391-00	METAL 56	1%	1/4W
R173	1-215-405-00	METAL 220	1%	1/4W
R174	1-215-409-00	METAL 330	1%	1/4W
R175	1-249-385-11	CARBON 2.2	5%	1/4W
R176	1-215-445-00	METAL 10K	1%	1/4W
R177	1-215-429-00	METAL 2.2K	1%	1/4W
R178	1-215-467-00	METAL 82K	1%	1/4W
R179	1-215-441-00	METAL 6.8K	1%	1/4W
R180	1-215-429-00	METAL 2.2K	1%	1/4W
R181	1-249-385-11	CARBON 2.2	5%	1/4W
R182	1-249-385-11	CARBON 2.2	5%	1/4W
R183	1-215-381-00	METAL 22	1%	1/4W
R184	1-215-405-00	METAL 220	1%	1/4W
R185	1-215-421-00	METAL 1K	1%	1/4W
R186	1-215-421-00	METAL 1K	1%	1/4W
R187	1-215-453-00	METAL 22K	1%	1/4W
R188	1-215-437-00	METAL 4.7K	1%	1/4W
R189	1-215-373-31	METAL 10	1%	1/4W
R190	1-215-391-00	METAL 56	1%	1/4W
R191	1-215-405-00	METAL 220	1%	1/4W
R192	1-215-409-00	METAL 330	1%	1/4W
R193	1-249-385-11	CARBON 2.2	5%	1/4W
R194	1-215-445-00	METAL 10K	1%	1/4W
R195	1-215-429-00	METAL 2.2K	1%	1/4W
R196	1-215-467-00	METAL 82K	1%	1/4W
R197	1-215-441-00	METAL 6.8K	1%	1/4W
R198	1-215-429-00	METAL 2.2K	1%	1/4W
R199	1-249-385-11	CARBON 2.2	5%	1/4W
R200	1-249-385-11	CARBON 2.2	5%	1/4W
R201	1-215-381-00	METAL 22	1%	1/4W
R202	1-215-405-00	METAL 220	1%	1/4W
R203	1-215-421-00	METAL 1K	1%	1/4W
R204	1-215-421-00	METAL 1K	1%	1/4W
R205	1-215-445-00	METAL 10K	1%	1/4W
R206	1-215-429-00	METAL 2.2K	1%	1/4W
R207	1-215-394-00	METAL 75	1%	1/4W
R208	1-215-394-00	METAL 75	1%	1/4W
R209	1-215-394-00	METAL 75	1%	1/4W
R210	1-215-375-00	METAL 12	1%	1/4W
R211	1-215-445-00	METAL 10K	1%	1/4W
R212	1-215-445-00	METAL 10K	1%	1/4W
R213	1-215-461-00	METAL 47K	1%	1/4W
R215	1-215-445-00	METAL 10K	1%	1/4W
R216	1-215-461-00	METAL 47K	1%	1/4W
R217	1-215-405-00	METAL 220	1%	1/4W
R218	1-215-461-00	METAL 47K	1%	1/4W
R219	1-215-453-00	METAL 22K	1%	1/4W
R220	1-215-453-00	METAL 22K	1%	1/4W
R221	1-215-429-00	METAL 2.2K	1%	1/4W
R222	1-215-421-00	METAL 1K	1%	1/4W
R223	1-215-429-00	METAL 2.2K	1%	1/4W
R225	1-215-463-00	METAL 56K	1%	1/4W
R226	1-215-463-00	METAL 56K	1%	1/4W
R227	1-215-463-00	METAL 56K	1%	1/4W
R228	1-215-463-00	METAL 56K	1%	1/4W
R229	1-215-463-00	METAL 56K	1%	1/4W

CGI BUS

REF.NO.	PART NO.	DESCRIPTION	REMARK
		COMPOSITION CIRCUIT BLOCK	
RB1	1-231-533-00	RESISTOR BLOCK 10KX4	
RB2	1-232-029-11	COMPOSITION CIRCUIT BLOCK	
RB3	1-232-029-11	COMPOSITION CIRCUIT BLOCK	
RB5	1-235-709-11	RES, ENCAPSULATED CERMET	
RB6	1-235-709-11	RES, ENCAPSULATED CERMET	
RB7	1-235-709-11	RES, ENCAPSULATED CERMET	
RB8	1-231-509-00	RESISTOR BLOCK 1KX4	
		VARIABLE RESISTOR	
RV1	1-241-626-11	RES, ADJ, CARBON 470	
RV2	1-241-626-11	RES, ADJ, CARBON 470	
RV3	1-241-761-11	RES, ADJ, CARBON 1K	
RV4	1-241-759-21	RES, ADJ, CARBON 220	
RV5	1-241-759-21	RES, ADJ, CARBON 220	
RV6	1-241-759-21	RES, ADJ, CARBON 220	
RV7	1-241-626-11	RES, ADJ, CARBON 470	
RV8	1-241-626-11	RES, ADJ, CARBON 470	
RV9	1-241-626-11	RES, ADJ, CARBON 470	
		SWITCH	
SW1	1-554-001-00	SWITCH, ROTARY	
SW2	1-553-977-00	SWITCH, SLIDE	
		TEST PIN	
TP1	3-673-772-41	TERMINAL, TP	
TP2	3-673-772-41	TERMINAL, TP	
TP3	3-673-772-41	TERMINAL, TP	
TP4	3-673-772-41	TERMINAL, TP	
TP5	3-673-772-41	TERMINAL, TP	
TP6	3-673-772-41	TERMINAL, TP	
TP7	3-673-772-41	TERMINAL, TP	
TP8	3-673-772-41	TERMINAL, TP	
TP9	3-673-772-41	TERMINAL, TP	
TP10	3-673-772-41	TERMINAL, TP	
TP11	3-673-772-41	TERMINAL, TP	
TP12	3-673-772-41	TERMINAL, TP	
TP13	3-673-772-41	TERMINAL, TP	
TP14	3-673-772-41	TERMINAL, TP	
TP15	3-673-772-41	TERMINAL, TP	
TP16	3-673-772-41	TERMINAL, TP	
TP17	3-673-772-41	TERMINAL, TP	
TP18	3-673-772-41	TERMINAL, TP	
		TP TERMINAL	
TPG1	3-673-772-01	TERMINAL, TP	
TPG2	3-673-772-01	TERMINAL, TP	
TPG3	3-673-772-01	TERMINAL, TP	
TPG4	3-673-772-01	TERMINAL, TP	

REF.NO.	PART NO.	DESCRIPTION	REMARK
		CRYSTAL	
X1	1-760-060-11	VIBRATOR, CRYSTAL	
X2	1-760-061-11	VIBRATOR, CRYSTAL	
X3	1-760-062-11	VIBRATOR, CRYSTAL	
X4	1-760-063-11	VIBRATOR, CRYSTAL	
X5	1-760-397-11	VIBRATOR, CRYSTAL	
	* A-6258-514-A	BUS BOARD, COMPLETE	
	7-622-207-05	N 2.6, TYPE 2	
	7-628-254-40	SCREW +PS 2.6X12	
		CONNECTOR	
CN5	1-508-742-00	PIN, CONNECTOR 3P	
CN6	1-506-468-11	PIN, CONNECTOR 3P	
CN7	1-564-002-11	PIN, CONNECTOR 3P	
CN42	1-764-071-11	SOCKET, CONNECTOR 100P	
CN43	1-764-071-11	SOCKET, CONNECTOR 100P	
CN44	1-764-070-11	SOCKET, CONNECTOR 80P	
CN001	1-691-960-11	PIN, CONNECTOR (PC BOARD) 3P	
CN002	1-691-960-11	PIN, CONNECTOR (PC BOARD) 3P	
CN003	1-691-960-11	PIN, CONNECTOR (PC BOARD) 3P	
CN004	1-691-960-11	PIN, CONNECTOR (PC BOARD) 3P	
CN008	1-569-170-11	CONNECTOR,COAXIAL (SMALL TYPE)	
CN009	1-569-170-11	CONNECTOR,COAXIAL (SMALL TYPE)	
CN010	1-569-170-11	CONNECTOR,COAXIAL (SMALL TYPE)	
CN011	1-569-170-11	CONNECTOR,COAXIAL (SMALL TYPE)	
CN012	1-569-170-11	CONNECTOR,COAXIAL (SMALL TYPE)	
CN013	1-569-170-11	CONNECTOR,COAXIAL (SMALL TYPE)	
CN014	1-569-170-11	CONNECTOR,COAXIAL (SMALL TYPE)	
CN015	1-569-170-11	CONNECTOR,COAXIAL (SMALL TYPE)	
CN016	1-569-170-11	CONNECTOR,COAXIAL (SMALL TYPE)	
CN017	1-569-170-11	CONNECTOR,COAXIAL (SMALL TYPE)	
CN018	1-569-170-11	CONNECTOR,COAXIAL (SMALL TYPE)	
CN019	1-563-337-11	HOUSING, CONNECTOR (DIP) 96P	
CN020	1-563-337-11	HOUSING, CONNECTOR (DIP) 96P	
CN021	1-563-337-11	HOUSING, CONNECTOR (DIP) 96P	
CN022	1-563-337-11	HOUSING, CONNECTOR (DIP) 96P	
CN023	1-563-337-11	HOUSING, CONNECTOR (DIP) 96P	
CN024	1-563-337-11	HOUSING, CONNECTOR (DIP) 96P	
CN025	1-563-337-11	HOUSING, CONNECTOR (DIP) 96P	
CN026	1-563-337-11	HOUSING, CONNECTOR (DIP) 96P	
CN027	1-563-337-11	HOUSING, CONNECTOR (DIP) 96P	
CN028	1-563-337-11	HOUSING, CONNECTOR (DIP) 96P	
CN029	1-563-337-11	HOUSING, CONNECTOR (DIP) 96P	
CN030	1-563-337-11	HOUSING, CONNECTOR (DIP) 96P	
CN031	1-563-337-11	HOUSING, CONNECTOR (DIP) 96P	
CN032	1-563-337-11	HOUSING, CONNECTOR (DIP) 96P	
CN033	1-563-337-11	HOUSING, CONNECTOR (DIP) 96P	
CN034	1-563-337-11	HOUSING, CONNECTOR (DIP) 96P	
CN035	1-563-337-11	HOUSING, CONNECTOR (DIP) 96P	
CN036	1-563-337-11	HOUSING, CONNECTOR (DIP) 96P	

BUS LED DRV

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN037	1-563-337-11	HOUSING, CONNECTOR (DIP) 96P	
CN038	1-563-337-11	HOUSING, CONNECTOR (DIP) 96P	
CN039	1-563-337-11	HOUSING, CONNECTOR (DIP) 96P	
CN040	1-563-337-11	HOUSING, CONNECTOR (DIP) 96P	
CN041	1-563-337-11	HOUSING, CONNECTOR (DIP) 96P	
		FILTER	
EMI1	1-236-071-11	ENCAPSULATED COMPONENT	
FL001	1-421-773-11	FILTER, NOISE REMOVAL	
FL002	1-421-773-11	FILTER, NOISE REMOVAL	
FL003	1-421-773-11	FILTER, NOISE REMOVAL	
FL004	1-421-773-11	FILTER, NOISE REMOVAL	
FL005	1-421-773-11	FILTER, NOISE REMOVAL	
FL006	1-421-773-11	FILTER, NOISE REMOVAL	
FL007	1-421-773-11	FILTER, NOISE REMOVAL	
FL008	1-421-773-11	FILTER, NOISE REMOVAL	
FL009	1-421-773-11	FILTER, NOISE REMOVAL	
FL010	1-421-773-11	FILTER, NOISE REMOVAL	
FL011	1-421-773-11	FILTER, NOISE REMOVAL	
FL012	1-421-773-11	FILTER, NOISE REMOVAL	

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*	1-631-489-11	LED BOARD	
		**********	
	3-674-390-00	HOLDER (B), LED	
		CONNECTOR	
CN1	1-506-468-11	PIN, CONNECTOR 3P	
		DIODE	
D1	8-719-812-43	DIODE TLG124A	
D2	8-719-812-43	DIODE TLG124A	
D3	8-719-812-43	DIODE TLG124A	
D4	8-719-812-43	DIODE TLG124A	
		RESISTOR	
R1	1-249-409-11	CARBON 220 5% 1/4W	
R2	1-249-409-11	CARBON 220 5% 1/4W	
R3	1-249-409-11	CARBON 220 5% 1/4W	
R4	1-249-409-11	CARBON 220 5% 1/4W	

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*	A-6266-353-A	DRV BOARD, COMPLETE	
		**********	
	4-608-929-01	SPACER, PC BOARD	

REF.NO.	PART NO.	DESCRIPTION	REMARK
		CAPACITOR	
C1	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C2	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C3	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C4	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C5	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C6	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C7	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C8	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C9	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C10	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C11	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C12	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C13	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C14	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C15	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C16	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C17	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C18	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C19	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C20	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C21	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C22	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C23	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C24	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C25	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C26	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C27	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C28	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C29	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C30	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C31	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C32	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C33	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C34	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C35	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C36	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C37	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C38	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C39	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C40	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C41	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C42	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C43	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C44	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C45	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C46	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C47	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C48	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C49	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C50	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C51	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C52	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C53	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C54	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C55	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	

DRV

REF.NO.	PART NO.	DESCRIPTION	REMARK
C56	1-104-665-11	ELECT 100MF 20% 16V	
C57	1-104-665-11	ELECT 100MF 20% 16V	
C58	1-104-665-11	ELECT 100MF 20% 16V	
C59	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C60	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
		CONNECTOR	
CN1	1-750-547-11	SOCKET, CONNECTOR 14P	
CN2	1-750-547-11	SOCKET, CONNECTOR 14P	
CN3	1-750-547-11	SOCKET, CONNECTOR 14P	
CN4	1-750-547-11	SOCKET, CONNECTOR 14P	
CN5	1-750-547-11	SOCKET, CONNECTOR 14P	
CN6	1-750-547-11	SOCKET, CONNECTOR 14P	
CN7	1-750-547-11	SOCKET, CONNECTOR 14P	
CN8	1-750-547-11	SOCKET, CONNECTOR 14P	
CN9	1-750-547-11	SOCKET, CONNECTOR 14P	
CN10	1-750-547-11	SOCKET, CONNECTOR 14P	
CN11	1-750-547-11	SOCKET, CONNECTOR 14P	
CN12	1-750-547-11	SOCKET, CONNECTOR 14P	
CN13	1-750-547-11	SOCKET, CONNECTOR 14P	
CN14	1-750-547-11	SOCKET, CONNECTOR 14P	
CN15	1-750-547-11	SOCKET, CONNECTOR 14P	
CN16	1-750-547-11	SOCKET, CONNECTOR 14P	
CN17	1-750-547-11	SOCKET, CONNECTOR 14P	
CN18	1-750-547-11	SOCKET, CONNECTOR 14P	
CN19	1-750-547-11	SOCKET, CONNECTOR 14P	
CN20	1-750-547-11	SOCKET, CONNECTOR 14P	
CN21	1-750-547-11	SOCKET, CONNECTOR 14P	
CN22	1-750-547-11	SOCKET, CONNECTOR 14P	
CN23	1-750-547-11	SOCKET, CONNECTOR 14P	
CN24	1-750-547-11	SOCKET, CONNECTOR 14P	
CN25	1-750-547-11	SOCKET, CONNECTOR 14P	
CN26	1-750-547-11	SOCKET, CONNECTOR 14P	
CN27	1-750-547-11	SOCKET, CONNECTOR 14P	
CN28	1-750-547-11	SOCKET, CONNECTOR 14P	
CN29	1-750-547-11	SOCKET, CONNECTOR 14P	
CN30	1-750-547-11	SOCKET, CONNECTOR 14P	
CN31	1-750-547-11	SOCKET, CONNECTOR 14P	
CN32	1-750-547-11	SOCKET, CONNECTOR 14P	
CN33	1-750-547-11	SOCKET, CONNECTOR 14P	
CN34	1-750-547-11	SOCKET, CONNECTOR 14P	
CN35	1-750-547-11	SOCKET, CONNECTOR 14P	
CN36	1-750-547-11	SOCKET, CONNECTOR 14P	
CN37	1-750-547-11	SOCKET, CONNECTOR 14P	
CN38	1-750-547-11	SOCKET, CONNECTOR 14P	
CN39	1-750-547-11	SOCKET, CONNECTOR 14P	
CN40	1-750-547-11	SOCKET, CONNECTOR 14P	
CN41	1-750-547-11	SOCKET, CONNECTOR 14P	
CN42	1-750-547-11	SOCKET, CONNECTOR 14P	
CN43	1-750-547-11	SOCKET, CONNECTOR 14P	
CN44	1-750-547-11	SOCKET, CONNECTOR 14P	
CN45	1-750-547-11	SOCKET, CONNECTOR 14P	
CN46	1-750-547-11	SOCKET, CONNECTOR 14P	
CN47	1-750-547-11	SOCKET, CONNECTOR 14P	
CN48	1-750-547-11	SOCKET, CONNECTOR 14P	
CN49	1-691-960-11	PIN, CONNECTOR (PC BOARD) 3P	
CN50	1-691-960-11	PIN, CONNECTOR (PC BOARD) 3P	
CN51	1-563-826-21	SOCKET, D-SUB CONNECTOR 15P	
CN52	1-563-826-21	SOCKET, D-SUB CONNECTOR 15P	
CN53	1-563-826-21	SOCKET, D-SUB CONNECTOR 15P	
CN54	1-563-826-21	SOCKET, D-SUB CONNECTOR 15P	
CN55	1-695-989-11	SOCKET, CONNECTOR 40P	
CN56	1-695-989-11	SOCKET, CONNECTOR 40P	
CN57	1-695-989-11	SOCKET, CONNECTOR 40P	
CN58	1-764-071-11	SOCKET, CONNECTOR 100P	
CN59	1-764-071-11	SOCKET, CONNECTOR 100P	
CN60	1-764-070-11	SOCKET, CONNECTOR 80P	
CN61	1-506-674-11	CONNECTOR 16P	
		DIODE	
D1	8-719-901-33	DIODE 1SS133	
D2	8-719-901-33	DIODE 1SS133	
D3	8-719-901-33	DIODE 1SS133	
D4	8-719-901-33	DIODE 1SS133	
D5	8-719-901-33	DIODE 1SS133	
D6	8-719-901-33	DIODE 1SS133	
		FILTER	
FL1	1-421-773-11	FILTER, NOISE REMOVAL	
		IC	
IC1	8-759-187-23	IC SN75ALS172-DW	
IC2	8-759-187-23	IC SN75ALS172-DW	
IC3	8-759-187-23	IC SN75ALS172-DW	
IC4	8-759-187-23	IC SN75ALS172-DW	
IC5	8-759-187-23	IC SN75ALS172-DW	
IC6	8-759-187-23	IC SN75ALS172-DW	
IC7	8-759-187-23	IC SN75ALS172-DW	
IC8	8-759-187-23	IC SN75ALS172-DW	
IC9	8-759-187-23	IC SN75ALS172-DW	
IC10	8-759-187-23	IC SN75ALS172-DW	
IC11	8-759-187-23	IC SN75ALS172-DW	
IC12	8-759-187-23	IC SN75ALS172-DW	
IC13	8-759-187-23	IC SN75ALS172-DW	
IC14	8-759-187-23	IC SN75ALS172-DW	
IC15	8-759-187-23	IC SN75ALS172-DW	
IC16	8-759-187-23	IC SN75ALS172-DW	
IC17	8-759-187-23	IC SN75ALS172-DW	
IC18	8-759-187-23	IC SN75ALS172-DW	
IC19	8-759-187-23	IC SN75ALS172-DW	
IC20	8-759-187-23	IC SN75ALS172-DW	
IC21	8-759-187-23	IC SN75ALS172-DW	
IC22	8-759-187-23	IC SN75ALS172-DW	
IC23	8-759-187-23	IC SN75ALS172-DW	
IC24	8-759-187-23	IC SN75ALS172-DW	
IC25	8-759-187-23	IC SN75ALS172-DW	

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC27	8-759-187-23	IC SN75ALS172-DW	
IC28	8-759-187-23	IC SN75ALS172-DW	
IC29	8-759-187-23	IC SN75ALS172-DW	
IC30	8-759-187-23	IC SN75ALS172-DW	
IC31	8-759-187-23	IC SN75ALS172-DW	
IC32	8-759-187-23	IC SN75ALS172-DW	
IC33	8-759-187-23	IC SN75ALS172-DW	
IC34	8-759-187-23	IC SN75ALS172-DW	
IC35	8-759-187-23	IC SN75ALS172-DW	
IC36	8-759-187-23	IC SN75ALS172-DW	
IC37	8-759-177-56	IC AM26C32CNS	
IC38	8-759-177-56	IC AM26C32CNS	
IC39	8-759-177-56	IC AM26C32CNS	
IC40	8-759-177-56	IC AM26C32CNS	
IC41	8-759-177-56	IC AM26C32CNS	
IC42	8-759-177-56	IC AM26C32CNS	
IC43	8-759-177-56	IC AM26C32CNS	
IC44	8-759-177-56	IC AM26C32CNS	
IC45	8-759-177-56	IC AM26C32CNS	
IC46	8-759-177-56	IC AM26C32CNS	
IC47	8-759-177-56	IC AM26C32CNS	
IC48	8-759-177-56	IC AM26C32CNS	
IC49	8-759-177-57	IC AM26C31CNS	
IC50	8-759-177-56	IC AM26C32CNS	
IC51	8-759-177-57	IC AM26C31CNS	
IC52	8-759-177-56	IC AM26C32CNS	
IC53	8-759-177-57	IC AM26C31CNS	
IC54	8-759-177-56	IC AM26C32CNS	

TRANSISTOR

Q1	8-729-907-50	TRANSISTOR DTC114WK	
Q2	8-729-907-50	TRANSISTOR DTC114WK	
Q3	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q4	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q5	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q6	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q7	8-729-907-50	TRANSISTOR DTC114WK	

RESISTOR

R49	1-216-025-91	METAL GLAZE 100	5%	1/10W
R50	1-216-025-91	METAL GLAZE 100	5%	1/10W
R51	1-216-025-91	METAL GLAZE 100	5%	1/10W
R52	1-216-025-91	METAL GLAZE 100	5%	1/10W
R53	1-216-025-91	METAL GLAZE 100	5%	1/10W
R54	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W
R55	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W
R56	1-216-077-00	METAL GLAZE 15K	5%	1/10W
R57	1-216-077-00	METAL GLAZE 15K	5%	1/10W
R58	1-216-025-91	METAL GLAZE 100	5%	1/10W
R59	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W
R60	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W
R61	1-216-077-00	METAL GLAZE 15K	5%	1/10W
R62	1-216-077-00	METAL GLAZE 15K	5%	1/10W
R63	1-216-025-91	METAL GLAZE 100	5%	1/10W
R64	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W
R65	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W
R66	1-216-077-00	METAL GLAZE 15K	5%	1/10W
R67	1-216-077-00	METAL GLAZE 15K	5%	1/10W
R68	1-216-025-91	METAL GLAZE 100	5%	1/10W
R69	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W
R70	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W
R71	1-216-077-00	METAL GLAZE 15K	5%	1/10W
R72	1-216-077-00	METAL GLAZE 15K	5%	1/10W
R73	1-216-025-91	METAL GLAZE 100	5%	1/10W
R74	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W
R75	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W
R76	1-216-077-00	METAL GLAZE 15K	5%	1/10W
R77	1-216-077-00	METAL GLAZE 15K	5%	1/10W
R78	1-216-025-91	METAL GLAZE 100	5%	1/10W
R79	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W
R80	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W
R81	1-216-077-00	METAL GLAZE 15K	5%	1/10W
R82	1-216-077-00	METAL GLAZE 15K	5%	1/10W
R83	1-216-025-91	METAL GLAZE 100	5%	1/10W
R84	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W
R85	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W
R86	1-216-077-00	METAL GLAZE 15K	5%	1/10W
R87	1-216-077-00	METAL GLAZE 15K	5%	1/10W
R88	1-216-025-91	METAL GLAZE 100	5%	1/10W
R89	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W
R90	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W
R91	1-216-077-00	METAL GLAZE 15K	5%	1/10W
R92	1-216-077-00	METAL GLAZE 15K	5%	1/10W

RELAY

RY1	1-515-971-11	RELAY
RY2	1-515-972-11	RELAY
RY3	1-515-972-11	RELAY

TEST PIN

TP1	3-673-772-01	TERMINAL, TP
TP2	3-673-772-01	TERMINAL, TP
TP3	3-673-772-01	TERMINAL, TP
TP4	3-673-772-01	TERMINAL, TP
TP5	3-673-772-01	TERMINAL, TP

****

* A-6266-357-A MPU BOARD, COMPLETE (JTC-P110)
* A-1304-062-A MPU BOARD, COMPLETE (JTC-P110B/P110C)

****

1-540-252-11 SOCKET, IC (PLCC)

CAPACITOR

C1	1-163-235-11	CERAMIC CHIP 22PF	5%	50V
C2	1-163-235-11	CERAMIC CHIP 22PF	5%	50V
C3	1-104-664-11	ELECT 47MF	20%	16V

MPU EXT

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REF.NO.	PART NO.	DESCRIPTION	REMARK
C4	1-104-665-11	ELECT 100MF 20% 16V	
C5	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C6	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C7	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C8	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C9	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C10	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C11	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C12	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C13	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C14	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C15	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C16	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C17	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C18	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C19	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C20	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C21	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C22	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C23	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C24	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C25	1-104-665-11	ELECT 100MF 20% 16V	
		CONNECTOR	
CN1	*1-695-986-11	SOCKET, CONNECTOR 40P	
CN2	*1-695-986-11	SOCKET, CONNECTOR 40P	
CN3	*1-695-986-11	SOCKET, CONNECTOR 40P	
		DIODE	
D1	8-719-901-33	DIODE 1SS133	
		IC	
IC1	8-759-342-48	IC HD6475328CP10-P420 (JTC-P110)	
IC1	8-759-433-45	IC HD6475328CP10-P501 (JTC-P110B/P110C)	
IC2	8-759-180-50	IC MB89371AH-PF	
IC3	8-759-180-50	IC MB89371AH-PF	
IC4	8-759-180-50	IC MB89371AH-PF	
IC5	8-759-180-50	IC MB89371AH-PF	
IC6	8-759-926-77	IC SN74HC541ANS	
IC7	8-759-926-77	IC SN74HC541ANS	
IC8	8-759-926-49	IC SN74HC245ANS	
IC9	8-759-926-77	IC SN74HC541ANS	
IC10	8-759-926-77	IC SN74HC541ANS	
IC11	8-759-926-77	IC SN74HC541ANS	
IC12	8-759-926-77	IC SN74HC541ANS	
IC13	8-759-925-90	IC SN74HC74ANS	
IC14	8-759-926-11	IC SN74HC138ANS	
IC15	8-759-926-11	IC SN74HC138ANS	
IC16	8-759-179-11	IC uPD28C04G-20	
IC17	8-759-925-80	IC SN74HC14ANS	
IC18	8-759-268-61	IC SN74HC08ANS-E20	
IC19	8-759-504-15	IC PST574CMT	

REF.NO.	PART NO.	DESCRIPTION	REMARK
		RESISTOR	
R1	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R2	1-216-097-91	METAL GLAZE 100K 5% 1/10W	
R3	1-247-807-31	CARBON 100 5% 1/4W	
		SWITCH	
SW1	1-572-832-11	SWITCH, PUSH	
		CRYSTAL	
X1	1-577-234-11	VIBRATOR, CRYSTAL	
		**********	
	*A-6269-870-A	EXT BOARD, COMPLETE **********	
	1-506-748-11	PIN, DIN CONNECTOR (DIP) 96P	
	1-563-341-11	HOUSING, CONNECTOR (DIP) 96P	
	3-182-481-01	HINGE	
	*4-360-309-11	SUPPORT, PC BOARD	
	7-628-254-40	SCREW +PS 2.6X12	
	7-682-248-09	SCREW +K 3X8	
	7-682-648-09	SCREW +PS 3X8	
	7-682-648-09	SCREW +PS 3X8	
		**********	
		MISCELLANEOUS **********	
	1-251-124-11	COUNTER, TIME	
	*⚠1-413-874-11	REGULATOR, SWITCHING	
	⚠1-413-876-21	REGULATOR, SWITCHING	
	⚠1-413-922-11	REGULATOR, SWITCHING	
	⚠1-540-157-11	INLET,AC(3P WITH NOISE FILTER)	
	1-563-847-11	SOCKET, D-SUB CONNECTOR 15P	
	⚠1-570-384-11	SWITCH, SEESAW (AC POWER)	
	1-698-046-11	FAN, DC	
	*1-900-038-01	CONNECTOR ASSY 2P	
	*1-900-038-02	CONNECTOR ASSY 2P	
	*1-900-038-03	CONNECTOR ASSY 2P	
	*1-900-038-04	CONNECTOR ASSY	
	*1-900-038-05	CONNECTOR ASSY, DC IN	
	*1-900-038-06	CONNECTOR ASSY, DC IN	
	*1-900-038-07	CONNECTOR ASSY, DC IN	
	*1-900-038-08	CONNECTOR ASSY	
	*1-900-038-09	CONNECTOR ASSY 3P	
	*1-900-038-10	CONNECTOR ASSY, D-SUB	
	*1-900-038-11	CONNECTOR ASSY (JTC-P110/P110B)	
	*1-900-038-12	CONNECTOR ASSY	
	*1-900-038-13	CONNECTOR ASSY	
	*1-900-038-14	CONNECTOR ASSY	
	*1-900-038-15	CONNECTOR ASSY	

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REF.NO.	PART NO.	DESCRIPTION	REMARK
	*1-900-038-16	CONNECTOR ASSY, DC IN	
**********			
		ACCESSORIES AND PACKING MATERIALS **********	
	*A-6279-870-A	EXT BOARD, COMPLETE	
	⚠1-534-754-00	POWER CORD 7A/120V	
	⚠1-534-827-14	CORD, POWER	
	⚠1-551-631-00	CORD, POWER 6A/250V	
	*1-766-469-11	CONNECTOR, CONVERSION (CENTRO)	
	2-378-801-01	HANDLE	
	*3-181-864-01	ANGLE	
	3-757-591-01	MANUAL, INSTRUCTION (JAPANESE) (JTC-P110)	
	3-757-591-11	MANUAL, INSTRUCTION (ENGLISH) (JTC-P110)	
	3-757-591-41	MANUAL, INSTRUCTION (GERMAN) (JTC-P110)	
	3-810-671-01	MANUAL, INSTRUCTION (JAPANESE) (JTC-P110B/P110C)	
	3-810-671-11	MANUAL, INSTRUCTION (ENGLISH) (JTC-P110B/P110C)	
	3-810-671-21	MANUAL, INSTRUCTION (GERMAN) (JTC-P110B/P110C)	
	7-682-278-09	SCREW +K 5X16	
	7-682-663-09	SCREW +PSW 4X12	

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